NAT'L INST. OF STAND & TECH R.I.C.

A11104 713011

NIST
PUBLICATIONS

NISTIR 5688

Proceedings of the Fourth Meeting of the Intergovernmental U.S.-Russian Business Development Commitee's Standard Working Group, March 27-31, 1995

Eldar E. Zulfugarzade

U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of Standards
and Technology
Gaithersburg, MD 20899

QC
100
.U56
NO.5688
1995

NIST

NISTIR 5688

Proceedings of the Fourth Meeting of the Intergovernmental U.S.-Russian Business Development Commitee's Standard Working Group, March 27-31, 1995

Eldar E. Zulfugarzade

U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of Standards
and Technology
Gaithersburg, MD 20899

July 1995

U.S. DEPARTMENT OF COMMERCE
Ronald H. Brown, Secretary

TECHNOLOGY ADMINISTRATION
Mary L. Good, Under Secretary for Technology

NATIONAL INSTITUTE OF STANDARDS
AND TECHNOLOGY
Arati Prabhakar, Director

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

MAY - 2 1995

Mr. Melvin R. Green
Associate Executive Director
Codes and Standards
American Society of Mechanical Engineers
New York, NY 10017-2392

Dear Mr. Green:

Thank you for co-hosting the recent meetings of the U.S. - Russia Joint Business Development Committee's Standards Working Group in New York City. Your initiative to lead ASME in its efforts to assist U.S. industry interested in exploring business opportunities in Russia, as well as to assist Russia in its adoption of international standards and conformity assessment practices, will contribute significantly to the development of our respective economies.

My staff has kept me and members of the Business Development Committee well informed of your activities, not only with Russia, but with Ukraine and other newly independent nations. Your extraordinary contributions to the successes of this Standards Working Group in reducing non-tariff trade barriers with Russia are exemplary.

Again, my personal gratitude for effectively assisting our nations to enhance their opportunities to engage in international trade.

Sincerely,

Ronald H. Brown

Ronald H. Brown

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

MAY - 2 1995

Mr. G. Thomas Castino
President and Chief Executive Officer
Underwriters Laboratories Inc.
Northbrook, IL 60062

Dear Mr. Castino:

Thank you for co-hosting the recent meetings of the U.S. - Russia Joint Business Development Committee's Standards Working Group at your facilities in Northbrook. UL's initiative to assist U.S. industry interested in exploring business opportunities in Russia, as well as to assist Russia in its adoption of international standards and conformity assessment practices, will contribute significantly to the development of our respective economies.

My staff has kept me and members of the Business Development Committee well informed of your activities, not only with Russia, but with Ukraine and other newly independent nations. Your extraordinary contributions and UL's Vice President, S. Joe Bhatia, are the basis for our successes in reducing non-tariff trade barriers with Russia.

Again, my personal gratitude for effectively assisting our nations to enhance their opportunities to engage in international trade.

Sincerely,

Ronald H. Brown

Ronald H. Brown

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

JOINT STATEMENTS 1

AGENDA 7

NEW YORK - OPENING REMARKS 13
- Mr. Melvin R. Green, Associate Executive Director, Codes and Standards, ASME International 14
- Dr.Stanley I. Warshaw, Senior Policy Advisor for Standards and Technology, U.S. Department of Commerce 15
- Dr. Serguei F. Bezverkhi, President, Committee of the Russian Federation for Standardization, Metrology and Certification 16

NEW YORK - PRESENTATIONS 18
- Dr. Serguei F. Bezverkhi 18
- Alexandr G. Pasko 38
- Dr. Viktor N. Smirnov 47
- George Q. Lofgren 54
- Walter R. Mikesell Jr., P.E. 63
- Dr. Richard E. [Gene] Feigel 67
- Steven M. Matthews 72
- Dr. Domenic A. Canonico 78
- Frank K. Kitzantides 83
- George T. Willingmyre, P.E. 89
- Leroy M. May 105
- Dr. Viktor N. Smirnov 107
- Albert D. Tholen 109
- Charles E. Adkins 119
- Les Weinstein, Esq. 123
- Vladimir Ivashkov 127
- Dr. Viktor I. Sapritsky 130

CHICAGO - OPENING REMARKS 135
- Mr. G. Thomas Castino 137
- Dr. Stanley I. Warshaw 137
- Dr. Serguei F. Bezverkhi 138

CHICAGO - PRESENTATIONS 139
    Alexandr G. Pasko 141
    R. Dan Reid 149
    Dr. Viktor N. Smirnov 155
    Lee Dosedlo, P.E. 157
    S. Joe Bhatia 163
    Dr. Viktor N. Smirnov 166

APPENDIX A - Terminology 168

APPENDIX B - GOSSTANDART OF RUSSIA 169

APPENDIX C - CATALOGUE OF AVAILABLE RUSSIAN OFFICIAL DOCUMENTS 229

APPENDIX D - OPTIONS FOR FOREIGN TESTING LABORATORIES 231

APPENDIX E - ATTENDEES 239

EXECUTIVE SUMMARY

The fourth meeting of the U.S.-Russia Business Development Committee's Standards Working Group took place on March 27-29, 1995 in New York City, New York hosted by the American Society of Mechanical Engineers International (ASME), and on March 30-31, 1995 in Northbrook, Illinois hosted by Underwriters Laboratories Inc. (UL).

The Russian delegation consisted of representatives of the Committee of the Russian Federation for Standardization, Metrology and Certification (GOSSTANDART). The U.S. delegation included representatives from government agencies (the Department of Commerce's (DOC) International Trade Administration, and the National Institute of Standards and Technology (NIST), Department of Labor's (DOL) Occupational Safety and Health Administration, Department of Health and Human Services' (HHS) Food and Drug Administration (FDA)), as well as private sector representatives (ASME International, American National Standards Institute ANSI), UL, several testing and certification bodies, and representatives of individual industrial companies and their trade associations).

The U.S. official delegation was headed by Dr. Stanley I. Warshaw, Senior Policy Advisor for Standards and Technology, U.S. DOC. The Russian Federation official delegation was headed by Dr. Serguei F. Bezverkhi, President of GOSSTANDART.

This fourth meeting of the Standards Working Group resulted in an exchange of information regarding the standards and conformity assessment programs and practices of each country in areas of mutual interest such as Boilers and Pressure Vessels, occupational and food and drug safety, automotive and telecommunications standards, and electrical and fire safety of consumer and industrial products.

Of particular significance was the signing of a Joint Statement on Conformity Assessment between GOSSTANDART and ASME International, a Joint Statement on Information Exchange between GOSSTANDART and FDA, and a working statement between Gosstandart and UL.

JOINT STATEMENTS --->

СОВМЕСТНАЯ ДЕКЛАРАЦИЯ ОБ ОЦЕНКАХ СООТВЕТСТВИЯ И О СВЯЗАННЫХ С НИМИ КОДАХ И СТАНДАРТАХ МЕЖДУ КОМИТЕТОМ РОССИЙСКОЙ ФЕДЕРАЦИИ ПО СТАНДАРТИЗАЦИИ, МЕТРОЛОГИИ И СЕРТИФИКАЦИИ (ГОССТАНДАРТ РОССИИ) И СОВЕТОМ ПО КОДАМ И СТАНДАРТАМ АМЕРИКАНСКОГО ОБЩЕСТВА ИНЖЕНЕРОВ МЕХАНИКОВ (ASME)

В период четвёртого заседания в г. Нью-Йорке, штат Нью-Йорк, с 27 по 29 марта 1995 года, Рабочей группы по стандартизации совместной Американо-Российской Комиссии по развитию делового сотрудничества, Президент Госстандарта России Сергей Ф. Безверхий и Старший Вице Президент по кодам и стандартам ASME Уолтер Р. Майкселл достигли соглашения о сотрудничестве в области гармонизации стандартов и связанных с ними программ оценок соответствия посредством подлежащих выбору способов и средств общения в процессах взаимного согласования.

Стороны согласились сотрудничать в разработке средств и способов обмена информацией о стандартах и программах оценок соответствия на административных этапах и этапах разработки этих стандартов и программ. Конечной целью этого соглашения является гармонизация стандартов, в первую очередь на основе международных стандартов и рекомендаций, с тем, чтобы национальные интересы не препятствовали торговле между странами-участницами этого соглашения.

Сергей Ф. Безверхий
Президент,
Госстандарт России

Walter R. Mikesell
Уолтер Р. Майкселл
Старший Вице Президент,
ASME

Подписано: 28 Марта 1995 года

Joint Statement on Conformity Assessment and Related Codes and Standards Between the Committee of The Russian Federation for Standardization, Metrology and Certification (Gosstandart of Russia) and The American Society of Mechanical Engineers (ASME) Council on Codes and Standards

On the occasion of the fourth meeting of the Joint U.S. Russia Business Development Committee's Standards Working Group in New York, N.Y., March 27-29, 1995, the President of Gosstandart of Russia, Dr. Serguei F. Bezverkhi, and the Senior Vice President, ASME International, Codes and Standards, Walter R. Mikesell, desiring to harmonize standards and related conformity assessment programs, agree to cooperate by continuing to participate in the consensus process through such communications mechanisms that can be established.

The parties agree to cooperate in developing mechanisms for the exchange of information regarding standards and conformity assessment programs during the developmental and administrative phases of such programs. The ultimate objective of this understanding is to harmonize standards primarily on the basis of international standards and recommendations so that national prerogatives do not inhibit commerce between these nations.

Serguei F. Bezverkhi
President, Gosstandart of Russia
Dated: March 28, 1995

Walter R. Mikesell

Walter R. Mikesell
Senior Vice President,
Codes and Standards
ASME International

JOINT STATEMENT ON INFORMATION EXCHANGE

BETWEEN

THE COMMITTEE OF THE RUSSIAN FEDERATION FOR
STANDARDIZATION, METROLOGY, AND CERTIFICATION
(GOSSTANDART OF RUSSIA)

AND

THE UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA)

On the occasion of the fourth meeting of the U.S.-Russia Business Development Committee's Standards Working Group in New York, N.Y., March 27-29, 1995, Gosstandart of Russia and FDA, desiring to exchange information on topics of mutual interest in this era of increased international cooperation, agree to develop mechanisms for such exchanges in the future.

The parties intend to cooperate on the exchange of information regarding the laws, regulations, standards and other requirements applicable to their respective agencies.

For Gosstandart of Russia
Vladimir N. Otrokhov
Director International
Dated: 1995 - 03 - 28

For the United States FDA
Les Weinstein
Regulatory Counsel
Dated: March 28, 1995

March 31, 1995

UL HOSTS MEETING ON JOINT U.S.-RUSSIAN PRODUCT SAFETY STANDARDS

NORTHBROOK, IL – Underwriters Laboratories Inc. (UL) today hosted a meeting with the Committee of the Russian Federation for Standardization, Metrology and Certification (GOSSTANDART of Russia) to discuss automotive, electrical and fire safety standards and related conformity assessment programs, as well as ISO 9000 and the auto industry quality practices in the U.S. and Russia. The meeting at UL was the final event in the fourth meeting of the U.S.-Russia Business Development Committee sponsored by the U.S. Department of Commerce, a week-long series of discussions on standardization topics.

UL and GOSSTANDART of Russia are working together on issues relating to product standards, testing, quality and product acceptance practices to foster a better understanding of the respective systems and to facilitate trade between the two countries.

G. Thomas Castino
G. THOMAS CASTINO
President and Chief Executive Officer
Underwriters Laboratories Inc.

DR. SERGUEI BEZVERKHI
Chairman
GOSSTANDART of Russia

AGENDA

INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS DEVELOPMENT COMMITTEE'S

STANDARDS WORKING GROUP

Monday, March 27, 1995
Grand Hyatt Hotel
Park Avenue and Grand Central
New York, NY 10017

Hosted by:
The American Society of Mechanical Engineers (ASME)
345 East 47th Street
New York, NY 10017

9:30 AM **Registration**

10:00 AM **Opening Remarks**

Mr. Melvin R. Green, P.E.
Associate Executive Director,
ASME INTERNATIONAL

Dr. Stanley I. Warshaw, P.E.
Senior Policy Advisor for Standards and Technology,
U.S. Department of Commerce (DOC)

Dr. Serguei F. Bezverkhi
President, Committee of the Russian Federation for Standardization,
Metrology and Certification (GOSSTANDART of Russia)

10:30 AM **Standardization, Metrology and Certification in the Russian Federation**

Dr. Serguei F. Bezverkhi
President, GOSSTANDART of Russia

11:30 AM **Standardization in Machine-Building**

Mr. Alexandr G. Pasko
Deputy Head, Department for Standardization and Certification in Machine-Building, GOSSTANDART of Russia

12:15 AM **Certification of Products and Services in the Russian Federation**

Dr. Viktor N. Smirnov
Deputy Head, Department for Technical Policy in Certification, GOSSTANDART of Russia

1:00 PM **Lunch**

2:00 PM **ISO 9000 Quality Assurance in the United States**

Mr. George Q. Lofgren
President, Registrar Accreditation Board (RAB)

3:00 PM **ASME Codes and Standards: a Path to Global Business Development**

Mr. Walter R. Mikesell, P.E.
Senior Vice President, Codes and Standards,
ASME INTERNATIONAL

3:30 PM **Board on Pressure Technology Codes and Standards**

Dr. Richard E. [Gene] Feigel
Vice President, Pressure Technology, Codes and Standards,
ASME INTERNATIONAL

4:00 PM **ASME Accreditation and Certification Programs**

Mr. Steven M. Matthews
Vice President, Accreditation and Certification,
ASME INTERNATIONAL

4:30 PM **Boiler and Pressure Vessel Code**

Dr. Domenic A. Canonico
Chair, Boiler and Pressure Vessel Committee
ASME INTERNATIONAL

5:00 PM **Adjourn**

Tuesday, March 28, 1995
Grand Hyatt Hotel
Park Avenue and Grand Central
New York, NY 10017

9:30 AM **IEC System for Conformity Testing to Standards for Safety of Electrical Equipment, IEC/IECEE**

Mr. Frank K. Kitzantides
Vice President, National Electrical Manufacturers Association (NEMA)

10:30 AM **American National Standards Institute's (ANSI) Conformity Assessment Activities**

Mr. George T. Willingmyre, P.E.
Vice President, Washington Operations
American National Standards Institute (ANSI)

11:15 AM **ANSI Approach to International Conformity Assessment**

Mr. Leroy M. May
Senior Staff Consultant for Standards and Conformity Assessment, AT&T NETWORK SYSTEMS

11:30 AM **Testing and Certification of Telecommunication Equipment**

Dr. Viktor N. Smirnov
Deputy Head of Department for Technical Policy in Certification, GOSSTANDART of Russia

1:00 PM **Lunch**

2:00 PM **Conformity Assessment Programs**

Mr. Albert D. Tholen
Chief, Laboratory Accreditation Program, National Institute of Standards and Technology (NIST), U.S. DOC

2:45 PM **National Recognized Testing Laboratories**

Mr. Charles E. Adkins, CIH
Director, Technical Support, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor (DOL)

3:15 PM **United States Food and Drug Administration Programs**

Mr. Les Weinstein, Esq
Regulatory Counsel, Center for Devices and Radiological Health, Food and Drug Administration (FDA), U.S. Department of Health and Human Services (HHS)

3:45 PM **INTERLINK Group Corporation**

Mr. Vladimir Ivashkov
President, INTERLINK Group Corporation

4:10 PM **On establishment of the Russian-American Center for Certification of Optical Products**

Dr. Viktor I. Sapritsky
Head of Laboratory, All-Russian Research Institute for Optical and Physical Measurements (VNIIOFI), GOSSTANDART of Russia

4:30 PM **Signing of Joint Statement on Conformity Assessment and Related Codes and Standards between ASME and GOSSTANDART**

4:45 PM **Signing of Joint Statement on Information Exchange between FDA and GOSSTANDART**

5:00 PM **Adjourn**

Wednesday, March 29, 1995
(New York, NY)

10:00 AM **Tour American National Standards Institute**

Presentations by ANSI Staff

Thursday, March 30, 1995
Held at and Hosted by:
Underwriters Laboratories Inc.
333 Pfingsten Road
Northbrook, IL 60062

8:30 AM **Registration**

9:00 AM **Opening Remarks**

Mr. G. Thomas Castino
President and Chief Executive Officer,
Underwriters Laboratories Inc. (UL)

Dr. Stanley I. Warshaw, P.E.
Senior Policy Advisor for Standards and Technology,
U.S. DOC

Dr. Serguei F. Bezverkhi
President, GOSSTANDART of Russia

9:30 AM **Russian Automotive Standards, Conformity Assessment Programs**

Mr. Alexandr G. Pasko
Deputy Head, Department for Standardization and Certification
in Machine-Building, GOSSTANDART of Russia

10:30 AM **Introduction to QS-9000 Chrysler, Ford, General Motors Quality System Requirements**

Mr. R. Dan Reid
Manager, Supplier Development/Supplier Quality,
North American Operations, General Motors Corporation (GM)

12:00 PM **Lunch**

1:00 PM **Electrical and Fire Safety Standards and Conformity Assessment Program**

Dr. Viktor N. Smirnov
Deputy Head, Department for Technical Policy in Certification,
GOSSTANDART of Russia

2:00 PM **Electrical/Fire Safety Standards/Conformity Assessment in the U.S.**

Mr. Lee Dosedlo, P.E.
Chief Engineer, Engineering, UL

3:00 PM **ISO 9000 Practices in the U.S.**

Mr. S. Joe Bhatia
Vice President, Follow-Up Services, UL

Gus Schaefer
Chief Engineer, Follow-Up Services, UL

4:00 PM **ISO 9000 Practices in Russia**

Dr. Viktor N. Smirnov
Deputy Head, Department for Technical Policy in Certification, GOSSTANDART of Russia

5:00 PM **Adjourn**

Friday, March 31, 1995
(Northbrook, IL)

10:00 AM **Tour Underwriters Laboratories Inc.**

Presentations by UL Staff

NEW YORK - OPENING REMARKS

to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Mr. Melvin R. Green, Associate Executive Director, Codes and Standards, ASME International

Good Morning!

On behalf of the American Society of Mechanical Engineers, I welcome you all to the Fourth Meeting of the Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group.

The Working Group has been meeting over the years. The delegations have accomplished a great deal, and mainly a trusting relationship has grown among their members. I expect this meeting to continue the progress.

Many of you know Michael Wasserman, our interpreter. Both delegations have worked with Michael in the past, and know that he gives expert translations. With Michael doing the translations, and with each of us speaking at a reasonable speed, I am confident that we will continue our past success of recognition and understanding of our two organizations' respective standards and conformity assessment programs.

Prior to describing some of the activities today, I want you to refer to ASME Organization-Activities Publication MM-2, because last evening I received some questions from the Russian delegates regarding the ASME organization.

If you look at the center fold of MM-2, you will observe the organizational structure of the American Society of Mechanical Engineers. One thing, which I want to point out, is the number of councils reporting to the Board of Governors of this Society.

You will note that there are five councils reporting to the Board:

- the Council on Public Affairs, which is in charge of government relations, public information, minorities and women;

- the Council on Codes and Standards, which is one of the sponsors of this Meeting, and this Council is in charge of the performance test codes, standardization, safety codes and standards, nuclear codes and standards, and pressure technology codes and standards;

- then, you will notice three other councils, but I am going to drop down to the last two, because they are of interest of the Russian delegation, when it comes to the agreement signed recently; that is the Council on Engineering and the Council on Education.

As I said, through the last several years, when we have been having these Meetings, there has been considerable progress between the Russian Academy of Sciences and American Society of Mechanical Engineers.

The agreement involved the transfer of technology between these two organizations. Within the last two weeks, ASME entered into a partnership relationship with the Russian Academy of Sciences to promote the applications of environmental and energy related technologies and to establish a more effective network of technology transfer.

Separate from the normal relationships, ASME's Codes and Standards has received a number of applications for accreditation of manufacturing facilities located in Russia. A number of the ASME's panelists that you will be hearing from this afternoon have been directly involved with this accreditation process.

I expect that tomorrow, following the second day of the two sessions in New York, there will be a signing of a document between GOSSTANDART of Russia and the ASME International.

Now with the positive results of the past and what we are expecting for the future, I am hoping for a lot of informality at this meeting, and at our break and lunch times, because it seems to me, that more can be achieved through these informal interactions, than from some of the papers that you will hear. Some of the understanding that we achieve regarding harmonizing our standards will come from these informal interactions at these Meetings.

At this point, I would like to introduce the real leaders of the ASME Codes and Standards. I will start with Walter R. Mikesell, he is a Senior Vice President, Codes and Standards, ASME International, and I might point out that, if you have any questions either in informal sessions or after the Russian delegation goes home, you can call upon Mr. Mikesell, because last year he spent 22 weeks in Russia. Next person is our Vice President of the Pressure Technology Codes and Standards R.E. [Gene] Feigel. The third person is Dominic A. Canonico, a Chairman of ASME Boiler and Pressure Vessel Committee. Then we have our Vice President of Accreditation and Certification, Steven M. Matthews. Steven Matthews is employed by the Nuclear Regulatory Commission. With that, I will introduce a person who needs no introduction really, Dr. Stanley I. Warshaw.

Dr.Stanley I. Warshaw, Senior Policy Advisor for Standards and Technology, U.S. Department of Commerce

Thank you, Mel. I want to take a few minutes to give some of you, who perhaps did not attend earlier Meetings an idea of how those Meetings proceeded.

In 1992, the Minister of Foreign Economic Relations of Russia and the U.S. Secretary of Commerce agreed to form a Joint Business Development Committee to address trade related issues. It became immediately apparent that standards and related matters are of prime importance to trade. So a Standards Working Group was formed, and Dr. Bezverkhi of GOSSTANDART and I were appointed as Co-Chairmen.

As Mr. Green pointed out, we achieved a number of Agreements in the three earier Meetings. You have a copy of the Proceedings issued in 1993 containing the information exchanged in that year and in the preceding years in the Standards Working Group.

The Agreement between the National Institute of Standards and Technology and GOSSTANDART calls for the exchange of technical information and personnel. Dr. Eldar Zulfugarzade from GOSSTANDART has been with NIST now for a year and a half. In fact, Eldar will be the Editor of the Proceedings for this Meeting.

At the 1993 Meeting we also announced the establishment of the SABIT Program, the Special Assistance Program for Business Intern Training. The U.S. Government and American industry co-fund the sponsorship of Russian technical experts at American facilities. At this time, the first group of Russian specialists are being trained at NIST and representatives of the U.S. automotive industry. You will also hear tomorrow about a recent award given to the INTERLINK Corporation.

Related to this, the Department of Commerce has also established Business Centers throughout Russia to assist American experts in interfacing with Russian interest.

I am very pleased that you all could be here today, and that Mr. Green, a host of ASME, has indicated that you feel free to open and engage in the discussion.

I think Dr. Bezverkhi will agree with me that the communication and dialogue achieved at these Meetings promote the results that we have achieved through the years.

I now have the honor of welcoming the distinguished President of GOSSTANDART of Russia. Dr. Serguei F. Bezverkhi will describe what GOSSTANDART is about, and will perhaps introduce the remaining members of his delegation that arrived here yesterday.

Dr. Serguei F. Bezverkhi, President, Committee of the Russian Federation for Standardization, Metrology and Certification

Thank you, Dr. Warshaw. Dear participants of the fourth Meeting, let me greet you on behalf of the Government of the Russian Federation, on behalf of our delegation, and from myself personally.

I would like you to know that the fourth Meeting we are conducting today confirms the fact, that the agreement we signed was a timely one, and this large and representative turn-out only underlines the fact that issues we are dealing with, are far from losing their importance. Quite to the contrary, every day they acquire the new significance and the need.

Let me thank the leadership of the American Society of Mechanical Engineers, in the person of Mr. Green and other leaders of the organization, he has just introduced, for organizing and preparing this Meeting. And naturally, as always, a large share of organizational work was carried out by my respected colleague Dr. Stanley Warshaw.

Let me introduce the colleagues that have come with me to the fourth Meeting of the U.S.-Russian Standards Working Group: Vladimir N. Otrokhov, Head of the Administration for International Cooperation of GOSSTANDART; Viktor N. Smirnov, Deputy Head of the Department for Technical Policy in Certification, and so far also in the area of Accreditation; Alexandr G. Pasko, Deputy Head of the Department of Standardization and Certification in Machine-Building; and Evgeniy B. Koudrine, Counselor to the President of GOSSTANDART. I expect that it could be Mr. Pasko to whom you would have most specific questions just judging on the nature of the today's Meeting.

NEW YORK - PRESENTATIONS

to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Standardization, Metrology and Certification in the Russian Federation

Dr. Serguei F. Bezverkhi, President
Committee of the Russian Federation
for Standardization, Metrology and Certification

Once more, dear colleagues, may I thank you again for the opportunity to tell you how GOSSTANDART works today and how we try to realize new approaches.

The radical economic reforms, which is under way in Russia, influence all aspects of our activity. Moreover, we have to be ahead of the situation. Otherwise, if we are behind of the development of our business and industry, we would be a subject of a sharp criticism by the Russian Government and by the media, because a Russian society could not afford additional problems coming from the lack of standards. We keep records and observe all publications in the Russian press on activities of GOSSTANDART. An absence of a sharp criticism, is an indication that so far we are marching ahead and we are in charge of the situation.

The reforms, that we are conducting on the standards, metrology and certification, have not affected the form. GOSSTANDART has a unique organizational structure: for now, we have preserved it in the shape it was always, the reform is mainly concerned itself with changing the content of our work but not its form.

Thus, our Committee was formed by the Presidential Decree of November 1991, and it is the first time now we have got a chance to work on the rulings not based on the Central Committee's and Council of Ministers' decrees, but on the ones based on laws.

On the first slide you can see the list of the relevant laws, the legal foundation of our activity. These basic laws are the laws on standardization, on uniformity of measurements, on certification of products and services and others, that you can see there. All I need to say is that, while we were typing the slides, two new laws have appeared.

One of them, that was passed, is the law for providing the safety of labor. It requires obligatory certification of workplaces and their equipment. As you understand, this law has direct relation to what we did together.

The second one is the law on industrial safety. This law requires for a similar certification of all of the equipment used in an especially hazardous production. These are pressure vessels, mining equipment, oil and chemical industry equipment, etc. I'd like to remember for this audience, that these additional laws were passed recently in Russia.

To develop this package of state legislation, GOSSTANDART prepared its own relevant subordinate acts shown on the second slide.

What are the main functions of GOSSTANDART? There are four ones.
The first our function is managing the standardization system and harmonizing it with the international and regional systems (slide 3). I have already been informally asked, what is the relation of Russian national standards with international ones. This question is answered in the ninth slide. And there you will find that we always give priority to international standards. In the list of principles of standardization, you will see the words "adopts and implements state standards". In the past, instead of the word "adopts" it was used to say "develops". And this is a big difference: at the moment, we do not develop these standards any longer. We just analyze and register them. We have at the moment about 20,000 state standards and over 40,000 industry standards. As you know currently industry ministries have been liquidated, and logically speaking with abolishment of ministries now the task of developing their standards would have to be shouldered by societies of engineers similar to ASME. But at the moment, there are either no such organizations in our country or, if they do exist, they are very weak, and we are very concerned about the possibility of losing our industry standards. To conclude this part about standards, I would like to say that we have formed now a federal standards fund including not only above mentioned 20,000 state standards, but also industrial safety, construction, medical and others standards. Though the fund is decentralized we are trying to make all of its parts capable of functioning in a matching fashion.

The next activity is shown on the fourth slide, and this is providing the unity of measurements. In our country historically happened, that uniformity of measurements also falls under our spheres of activity. Thus, in my presentation here today, I can not bypass our works in the area of metrology. And it is especially important, since Mr. Green asked me a question, what are our relations with the Russian Academy of Sciences. Our greatest and most important interaction with the Russian Academy of Sciences is in the area of developing national physical standards, their storage, and transfer.

The third direction is somewhat new to us: this direction is certification of products and services (slide 5). According to the consumers rights protection law, that you had an opportunity to view on the first slide, it is forbidden in Russian Federation to trade in goods and services which do not posses certificates of conformance. This law passed in 1992 and since that time we have been developing the procedures of implementing it in the Russian Federation.

The next area of our activity is the state supervision in the fields of standardization, metrology and certification (slide 6). This function always attracts a lot of attention: people ask how can we achieve in one Committee such varied functions including a supervision. A little bit later I will tell you how we realize all these functions including a supervision.

These are four main functions of our Committee, but we are also in charge of information servicing (slide 7): publication and dissemination of standards, classifiers, catalogs, handbooks, and other patterns of information. GOSSTANDART has exclusive rights to publish and disseminate any information in the sphere of its jurisdiction.

Naturally, GOSSTANDART is in charge of representing Russian Federation in international forums on standardization, metrology and certification (slide 8).

We also have several educational establishments to prepare managerial and technical personnel. Some of them are the medium level colleges, or the level of junior colleges; we also produce high level education for the people who are currently working in the areas of standardization, metrology and certification, both in the GOSSTANDART and in the branches of Russian industry.

Our basic working principles are shown on the ninth slide. The first principle is an observance of a legislation: the former Soviet Union never used to have any legislation in this area.
The second principle is a priority of international rules and regulations over national ones. I have been asked in the past: are there the national peculiarities? Yes, of course there are. Russia is the large country, we have our areas of unusual climates, the unstable micro-profile of some roads during the year, etc. Naturally, to complement to international standards we also have our national standards. However, we see as our main task to harmonize international and national standards. In our former economy, standards were usually developed by the branches of industry. Today more than 280 technical committees are in charge of standards developing, and they work, like all other international technical committees, on the voluntary basis. The developed standards have been subjected to legal expert investigation, and are registered by GOSSTANDART. Again, I want to stress here, that they are not approved, they are registered.

GOSSTANDART has a significant scientific and technical capability (slide 10). In each constituent state of the Russian Federation and also in the most large cities, we have centers for standardization and metrology. Since we moved to market economy, we are getting an increased number of requests from different cities and towns, because now local authorities are forced to organize our centers in the municipalities for the end of products and services certification. Just in the last months, we have established two new centers in the town of Naberezhniye Chelny, where you know famous KAMAZ automobile plant is located, and also in the port of Nakhodka, near Vladivostok on the Pacific coast, in the free economic zone. We have assigned new functions to the centers of standardization and metrology: they are now governmental agencies with the rights to function in the market on non-commercial bases. We have attended to give our local agencies the status, that would permit them, with proper accreditation, to conduct the mandatory verification and voluntary calibration of measuring instruments, as well as to conduct the certification work in the legally regulated sphere, and it also would permit them to have subdepartments or subdivisions of state inspectors who carry out supervision of mandatory requirements in the fields of standardization, metrology and certification. The Russian Civil Code finally passed last year, that had given us the legal basis for working this way.

Why do I underline this a particular feature of our work? It is because, initially we did receive radical suggestions, for example, to divide GOSSTANDART into four agencies: standards - in one agency, metrology - in the second one, certification - in the third one, and state supervision - in the fourth agency. We believe, that we have exercised what seems to be a healthy conservatism, which permitted us not only to retain our staff, but also to equip our laboratories, especially as regards certification, though, of course, there are certain shadow areas for working in this combined way. Further, as you can see, we base our work on 19 scientific and research institutes: they are mainly metrological institutes, some of them are very well equipped. Our primary measurement standards are not, in any way, inferior to the situation in the U.S., Great Britain, Germany or Japan.

It must be said, however, that GOSSTANDART is not the only organization in the Russian Federation that is in charge for these areas of activity. GOSSTANDART interacts with other authorized Federal agencies and organizations responsible for the safety of products control within their jurisdiction: there are, for example, the Ministry of Nature, the State Nuclear Power Supervision, the Ministry of Health, the State Committee for Sanitary and Epidemiological Supervision, the State Committee for Construction, the State Customs Committee, etc.

As you know, the Russian Federation is actively preparing to join the World Trade Organization. Obviously, GOSSTANDART is also preparing for its participation in the WTO Standards Code: we have formed, as I mentioned above, a Federal Standard Fund, now we have worked out a Draft Government Decree on creating WTO Information Center. And we are preparing to translate our standards into English.

Now I would like to say a few words about metrological service. The metrological service in Russia is one of the oldest in the world. In 1992, we celebrated 150 years of the state system of uniformity of measurements. However, the need to adapt to metrology to new market-oriented conditions and harmonize it with international and national systems has urged us to develop the law "On uniformity of measurements". In the former centralized economy, just as in the area of standardization, all rules in metrology were mandatory. The new law also divides the hole sphere into two parts: the first one is mandatory, where some measuring instruments are subjected to verification, and the second one is voluntary, where other measuring instruments are calibrated on commercial basis. I shall not dwell any longer on this issue, because our colleague, Dr. Eldar Zulfugarzade, will be working here for three years, as a Guest Researcher at NIST, and he is in the full command of this information, if should you have any questions.

I would like to give you a few more details on the issue of the certification. The law on mandatory certification of products and services in some areas was passed in 1992. It is even difficult to imagine what will be going on in Russia now if in due time we did not introduce this mechanism. Unfair and cynical practices by some of domestic and foreign suppliers poison our population with such ease, that even now, with this mechanism, we still are far from solving the problem. We never had this problem in the past, we used to have problems with the quality of goods, but safety was never an issue, at least not on the scale experienced at the moment.

The legislative basis of this work consists of two what we believe to be important laws: one is the law "On consumers' rights protection" and the second is "On certification of products and services". According to an article 5 of the first law, it is illegal to sell goods and services without a certificate confirming their compliance to mandatory requirements specified in standards. It would be more correct, by my opinion, to say, that it is forbidden to sell uncertified products and services, because the law has unsuccessfully established direct connection between goods and services, from one hand, and certificates of compliance, from the other hand. This law also assigned GOSSTANDART as a national certification body: it means that GOSSTANDART works out rules and procedures on the basis of international guides, it sets up the accreditation system and accredits laboratories and accreditation bodies. At the same time, if in the cases when a legislation provides for some other agency or ministry to be in charge of certification in the certain area, they have equal rights with GOSSTANDART to do with this work, as I mentioned previously.

How did we begin our work in this area? First of all, we put together and confirmed the list of products and services which are subject to mandatory certification. This list is accompanied by codes of both the All-Russian Classifier and Trade Nomenclature of External Economic Activity. Now we are preparing the Addendum to the list. This is because of our law "On consumers' rights protection" requires that products and services for household use are primary candidates for mandatory certification. This means that most of machines, mechanisms and equipment were not subjected to this law. The Ministry of Labor prepared a piece of legislation, so-called the law "On legislative fundamentals of labor safety", that had recently passed. According to this law, workplaces and their equipment are subject to mandatory certification. We are now in the process of completing a list of machinery and equipment which will be subjecting to mandatory certification in accordance with this law, and also with the law "On industrial safety". For each of 80 groups of similar products, we have named a leading authority in this area, which we called a Central Certification Body: usually, it is either one of GOSSTANDART's department or leading Research Institutes of former branches of industry. We accredited both certification bodies for each of the group of similar products and testing laboratories. As of today, we have accredited nearly 500 certification bodies and we are getting close to 2000 accredited labs. Naturally, we introduce all these certification facilities in the National Registry, that, by the law, has been conducted by GOSSTANDART. But there are cases, when the products and services do not lie within GOSSTANDART's jurisdiction, for example, space technology certification: although the law provides that it is the Russian Space Agency, that develops certification system for space technologies, nevertheless the Agency is in charge of coordinating own certification system with GOSSTANDART and afterwards of introducing it into the National Registry.

All our certification problems have been analyzed in the coarse of last year, and we have republished basic normative documents, namely:

- Procedures of certification in the Russian Federation,

- Rules of certification,

- Requirements and procedures for accreditation of certification bodies,

- Requirements and procedures for accreditation of testing labs,

- A joint ruling of Russian Customs Service and GOSSTANDART on importation of goods on the territory of Russia,

- A commentary of the streamline procedure to this joint order,

- Rules on accreditation,

- Temporary rules and order of payment for certification/accreditation services.

At the first time in our history, all these basic documents published by GOSSTANDART are registered at the Ministry of Justice.

And now let me say a few words about the interaction with the formerly Soviet Republics and now newly independent states - NIS. Historically, the most means, equipment and experts of former GOSSTANDART of the U.S.S.R. have remained in Russia. In March, 1992, Governments of NIS signed an agreement, creating an Intergovernmental Council on issues of standardization, metrology and certification. This is, practically, a regional standardization entity. The Council congregates twice a year, and as of today we have signed about 20 principal documents: beginning with mutual recognition of verification marks on measuring instruments and certificates of compliance on goods, to reciprocal recognition of standards, which all are currently handled in the standards bank by GOSSTANDART of the Russian Federation - in fact they are actually standards of entire group of the countries, namely NIS. In the latest meetings of this Council participated not only members of NIS, but plenipotentiaries of Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, and Slovak Republic. In another words, practically all formerly socialist countries have participated in this activity because we do share same standards, and the mutual coordination is extremely important. The next, 8th intergovernmental meeting of this Council, April 24-26, 1995, St.-Petersburg, Russia, will discuss the issue and development of unified certificate of compliance to be equally recognized and accepted in all countries of Commonwealth of Independent States. This unified certificate would be written in two languages (in Russian, as a common language, and also in the language of the producer - for example, Ukrainian, Kazakh, Byelorussian, etc.), and would be having equal recognition in the countries. We believe, this is a very delicate but important step in overcoming trade barriers.

[Copies of 14 slides used follow]

Legal fundamentals for standardization, metrology and certification in Russia

1

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

Adopted are the Laws :

- Standardization
- Uniformity of measurements
- Certification of products and services
- Consumer rights protection
- Environmental protection
- Sanitary and epidemiological care of people
- Products deliveries for state needs
- Customs tariff
- Small arms

Draft Laws on:

- Safety of machines and mechanizms
- Quality of drinking water
- Safety of food products
- Safety of food stuffs for children
- Energy- and resources preserving

Decrees by the President and Government Directives on:

- State monopoly on production, storage and selling of spirit products
- Usage of cash-desks when settling with population
- Procedure of licensing of type of activities in territories of krais, regions, towns of Federal importance

Main sublegal acts of Gosstandart of Russia

2

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- Statute of Gosstandart
- State standardization system
  (GOST R 1.0-92 – 1,5-92 — fundamental regulations)
- Regulations of the federal fund of state standards and All-Russia classifiers for technical and economic information
- Regulations of the state metrological centre
- Regulations of the uniform time and frequency service
- Regulations of standards of composition and properties of substances and materials and their standard reference data
- General rules of certification GOST R
- Certification system of similar products and services
- Procedure of confirmation of imported goods safety
- Procedure of interpayment between consumer and executor during mandatory certification of products and services
- Regulations of territorial bodies of Gosstandart of Russia
- Rules of directions distribution and fines impositions by Gosstandart of Russia bodies for violations of mandatory requirements of standards, legislative metrological rules and rules of mandatory products and services certification
- Training of expert-auditors on general rules of products and services certification GOST R

Gosstandart - State management standardization body

- Pursues state policy in standardization

- Adopts and implements state standards and classifiers of technical and economic information

- Informs on adopted state standards and those of international and national organizations

- Inplements state control and supervision over observance of mandatory requirements specified in state standards

- Represents the Russian Federation in international and regional standardization organizations

- Arranges professional training of personnel in the field of standardization

Gosstandart — body of state management in uniformity of measurements

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- Arranges state management in uniformity of measurements in the Russian Federation
- Specified value units permissible for application
- Determines general metrological requirements to measuring equipment, methods and results
- Specifies rules for creation, approval, storage and usage of standards
- Performs state metrological control and supervision
- Controls observance of international agreements of the Russian Federation on recognition of test results and verification of measuring equipment

Gosstandart – National certification body for products and services

5

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- Specifies general certification rules
- Specifies variety of products subject to mandatory certification
- Accredites certification bodies and testing laboratories
- Performs control over observance of certification rules and certified products
- Maintains the state register of sertification systems, conformity marks, participants and objects of certification
- Arranges training of personnel in the field of certification
- Informs public community on problems of certification

GOSSTANDART - STATE CONTROL AND SUPERVISION BODY

6

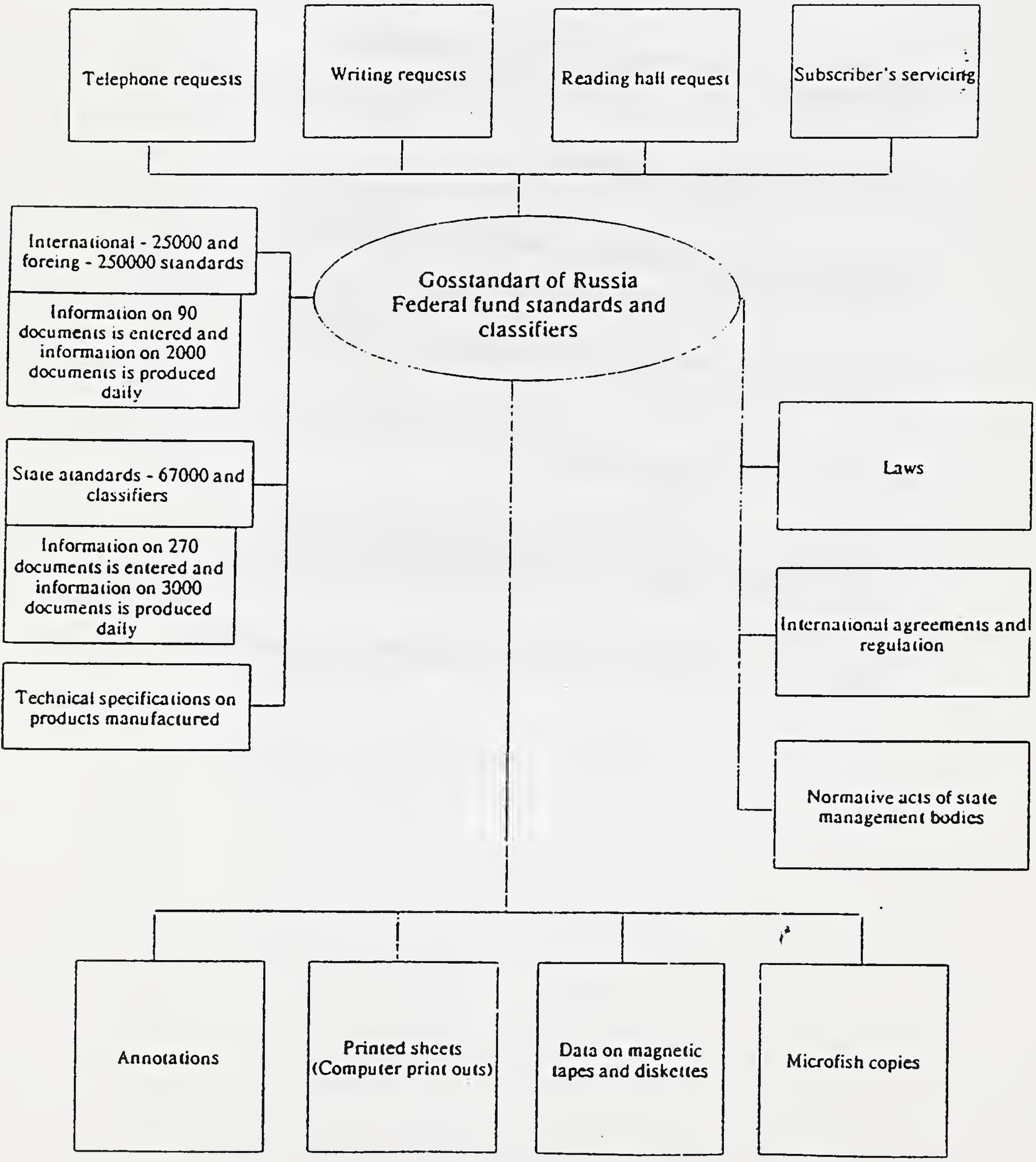
GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- Supervision over state standards mandatory requirements implementation
- Metrological control and supervision
- Inspection control over accredited certification bodies and test laboratories activities
- Supervision over certified products conformity to established requirements
- Control over imported goods safety
- Coordination of territorial state management bodies activities in the sphere of control over products, work and services safety
- Training and attestation of experts on state control and supervision

Information servicing of users

7

GOST R GOST R GOST R GOST R GOST R GOST R



Telephone requests

Writing requests

Reading hall request

Subscriber's servicing

Gosstandart of Russia
Federal fund standards and classifiers

International - 25000 and foreing - 250000 standards

Information on 90 documents is entered and information on 2000 documents is produced daily

State atandards - 67000 and classifiers

Information on 270 documents is entered and information on 3000 documents is produced daily

Technical specifications on products manufactured

Laws

International agreements and regulation

Normative acts of state management bodies

Annotations

Printed sheets (Computer print outs)

Data on magnetic tapes and diskettes

Microfish copies

International activities of Gosstandart

8

* Gosstandart

- formulates and implements state policy for creation of normative base of close type harmonized internationally
- represents the Russian Federation as a national body for standardization, metrology and certification in international and regional organizations
- specifies rules for application of international standards on the territory of the Russion Federation
- makes agreements with foreign countries on mutual recognition of certification results and joining to international (regional) certification systems
- controls observance of international agreements on recognition of test results and verification of measuring equipment
- prohibits sale of imported products and services non-conforming to mandatory requiremets specified in Russian state standards

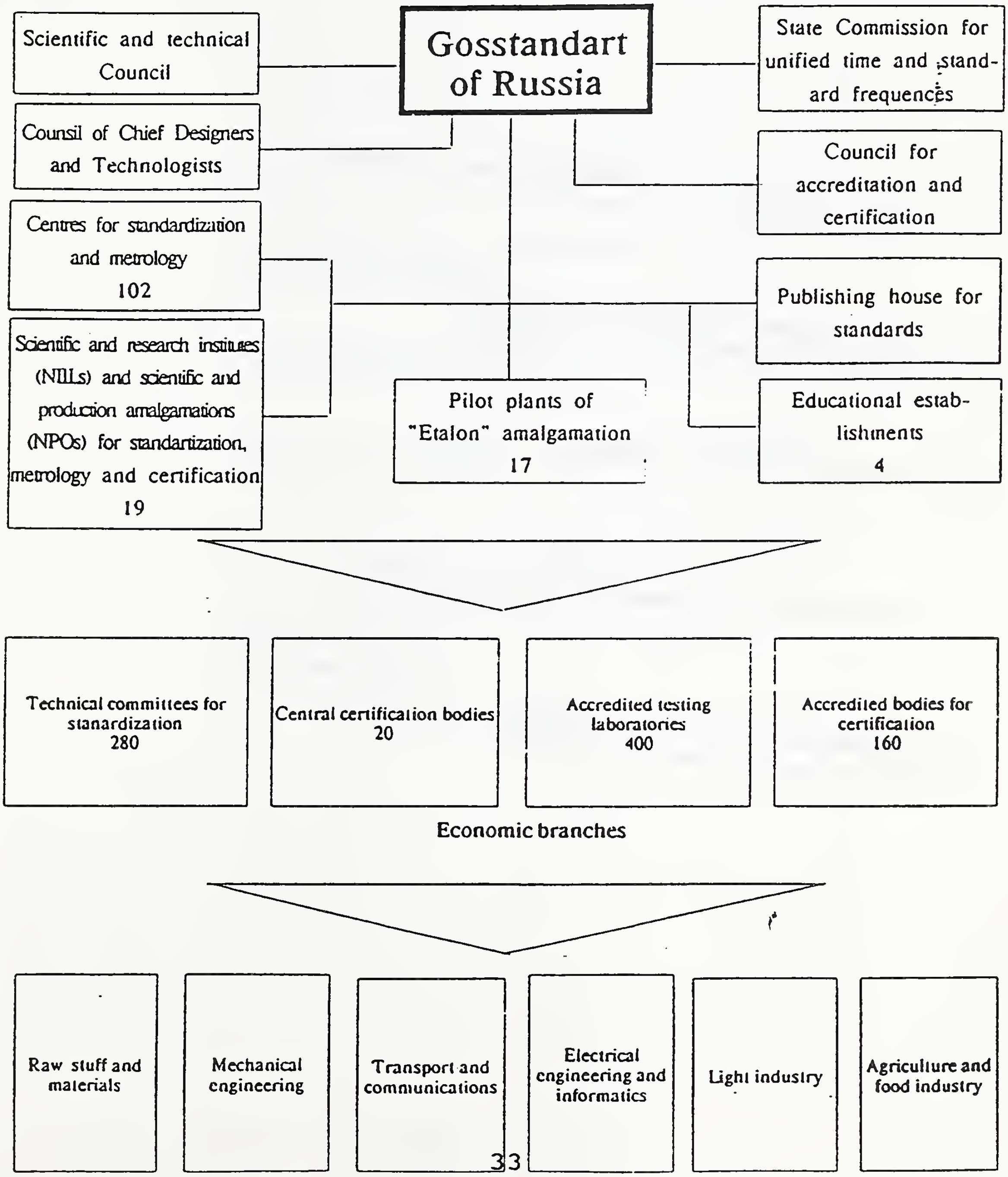
Basic working principles in standardization	9

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- Observance of legislation
- Priority of international rules and regulations
- Collectivity and openness
- Participation of all parties concerned
- Competitiveness
- Orientation to the present scientific and technical state - of - the art
- Economic reasoning
- Orientation to the benefit of all

Composition of standardization, metrology and certification bodies and services

GOST R GOST R GOST R GOST R GOST R GOST R



Gosstandart of Russia

Scientific and technical Council

Counsil of Chief Designers and Technologists

Centres for standardization and metrology 102

Scientific and research institutes (NIIs) and scientific and production amalgamations (NPOs) for standartization, metrology and certification 19

State Commission for unified time and standard frequences

Council for accreditation and certification

Publishing house for standards

Educational establishments 4

Pilot plants of "Etalon" amalgamation 17

Technical committees for stanardization 280

Central certification bodies 20

Accredited testing laboratories 400

Accredited bodies for certification 160

Economic branches

Raw stuff and materials

Mechanical engineering

Transport and communications

Electrical engineering and informatics

Light industry

Agriculture and food industry

Mandatory requirements specified in state standards of the Russian Federation

11

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- Requirements to products, activities and services in terms of safety for environment, life, health and property

- Requirements to technical and information compatibility and interchangability of products

- Unified methods for control and marking

- Requirements specified by the legislation of the Russian Federation

- Imported products and services should correspond to mandatory requirements specified in state standards

State metrological service (SMS)

- State scientific and metrological centres
- Territorial SMS bodies on the territories of subjects of the Russian Federation
- State service of time and frequency and determination of Earth rotation parameters
- State service of standards for composition and properties of substances and materials
- Metrological services of other bodies of state management
- Metrological services of legal persons - subjects of economic activities

Areas to cover by the state metrological control and supervision

* Health care, veterinary service, environmental protection, occupational safety

* Trade and state accounting operations

* Ensurance of state defence

* Geodezical and hydrometeorological activities

* Banking, tax, customs and mail operations

* Manufacture of products according to state contracts

* Mandatory certification of products and services

* Measurements to be made as entrusted by the state management bodies and courts

* Registration of sport records

Data provided to the potential exporter

GOST R GOST R GOST R GOST R GOST R GOST R GOST R

- List of legislative acts and standards for certifications purposes
- Procedure for imported products requiring confirmation of their safety
- Certification rules and procedures within GOST R system
- List of subsystems for certification of similar products
- List of products subject to mandatory certification
- List of state standards for certification purposes
- Data on certification bodies accredited by Gosstandart (including laboratories abroad)
- List of foreign countries certification and conformity marks admitted by Gosstandart

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Standardization and Certification in Machine-Building

Alexandr G. Pasko, Deputy Head
Department for Standardization and Certification
in Machine-Building
Committee of the Russian Federation
for Standardization, Metrology and Certification

I would like to speak about several issues of standardization and certification in machine-building.

The following principal requirements are of importance in the Russian system of standardization:

- the goals of the system must be adequate with the purposes of the economic reform currently under way in Russia, and they must be harmonized with appropriate national systems of standards in developed industrial countries. These goals are as follows:
- protection of the state and population interests in the areas of safety of goods and services;
- environmental protection;
- elimination of trade barriers in production and in commerce;
- promotion an economy of natural resources and assistance in improving of economic rates of production.
- national standardization system must stand on the legislative foundation; and finally,
- it must be in harmony with international, regional and national systems.

All these requirements have been represented and reflected in the Russian law "On standardization".

I would like to briefly inform you on national standards funds in several industrial areas.

Over 130 national standards and 450 industry standards are currently working in an automotive industry. National standards on automobiles of Russia practically include requirements of 59 rules of the European Economic Commission of the United Nations.

In a machine-tools industry are working 3000 national standards, and 72% of those standards have been harmonized with the ISO standards.

In the tractor and agriculture machine-building, there are about 200 national standards, and 80% of them have been harmonized with the ISO standards.

Over 2000 standards are working now in the heavy machine-building industry. They are currently also practically harmonized with the ISO standards.

Thus, the working bank of standards in the machine-building includes over 5000 national standards. A necessity was recognized to develop a short-term standardization program to review of existing standards and work-out of new ones. This program includes 1457 national standards, whose review and development must be finished in 1997. We will give a special attention to developing national standards on methods of testing.

As it says in the law "On certification", the mandatory requirements of national standards must be followed when conducting testing and certification. Thus, when we complete this program, it will be possible to provide in full scale the basis of mandatory certification requirements of our laws. This list of the Russian Federation laws, as regards to machine-building, includes the law "On consumers' rights protection", the law "On legislative fundamentals of labor safety", the law "On industrial safety", and the currently being developed law "On the safety of machines and mechanisms". In accordance with these laws, we have created a list of products in the machine-building, which are subjected to the mandatory certification. This list was worked out based on the following requirements:

- the most hazardous, from the points of view of possible traumas and environment protection, products;

- the existence of the network of accredited testing centers and labs;

- complaints about safety of existing kinds of equipment.

Based on these requirements, this list includes 192 groups of machine-building products. By 1997, it will contain 209 groups of products.

In order to carry out the necessary certification work in machine-building, we developed 7 systems of certifying specific kinds of products. Among them there are the systems for certifying:

- automotive means of transportation;
- pumps, pipe lines, and refrigeration installations;
- diamond powders and tools;
- cutting tools and means for locksmiths and fitters;

- metal-processing machines;

- household equipment, processing gaseous, solid, and liquid kinds of fuel;
- agricultural equipment.

At the present time all products of 192 groups, which are subject to the mandatory certification, are tested at the 122 accredited testing labs, and are certified at the 48 accredited certification bodies.

Now, let me give special attention to some isolated questions, regarding to high-pressure vessels.

1. Legislative acts of the Russian Federation in the area of high pressure vessels.

Laws in force in the Russian Federation specifying standardization, certification and supervision over high pressure vessels are as follows:

1.1. "On standardization".

Specifies the need to develop state standards including:

- requirements to products, activities and services in terms of their safety to environment, life, human health and property and those to labor safety and production sanitation;

- requirements to technical and informational compatibility as well as to products interchangeability;

- major consumer properties of products, their control methods, requirements to packaging, marking, transportation, storage, usage and utilization of waste;

- rules and norms providing technical and informational uniformity in development, production, usage of products, activities and servicing including rules specifying the execution of technical documents, fits and tolerances, general rules specifying quality of products, activities and services, conservation and rational usage of all types of resources, terms and their definitions, symbols, metrological and other general technical and organizational rules and norms.

Requirements specified by state standards to make products, activities and services safe for environment life, human health and property, ensure technical and informational compatibility of products, uniformity in control methods and marking as well as other requirements as specified by legislation of the Russian Federation are mandatory for the state management bodies and entities.

Conformity of products and services to the above state standards requirements is determined as specified by the legislation of the Russian Federation on mandatory certification of products and services.

1.2. "On certification of products and services".

According to this law the purposes of GOSSTANDART are as follows:

- shaping and implementing the state policy in certification, specifying general rules and recommendations on how to certify in the Russian Federation and publishing information on them;
- preparing, as specified, proposals on joining the international (regional) certification systems and making agreements on mutual recognition of certification results;
- representing the Russian Federation, as specified, in international (regional) organizations.

GOSSTANDART of Russia:

- specifies rules to recognize foreign certificates, conformity marks and test results;
- performs state control and supervision and specifies inspection control over the observance of certification rules and certified products;
- issues certificates and licenses to apply conformity marks.

1.3. "On legislative fundamentals on labor safety"

Specify mandatory certification of production facilities for their conformity to safety and environmental protection requirements.

Entrust GOSSTANDART of Russia with the task to approve the list of products subject to mandatory certification.

According to the above legislation, high pressure vessels are to be mandatorily certified as of January 1, 1996.

2. Authorities of Federal bodies in control and supervision over high pressure vessels.

As specified in the Provision on the Committee of the Russian Federation for standardization, metrology and certification, the tasks of GOSSTANDART are as follows:

- developing state standards for products including those for high pressure vessels;
- harmonizing state standards requirements with international and foreign standards;
- specifying rules to use international (regional) standards, rules, norms and recommendations in the Russian Federation;
- representing the Russian Federation, as specified, in the international and regional organizations as national certification body;
- supervising observance of mandatory standards requirements, metrology rules;
- accrediting testing centers and certification bodies for groups of uniform products;
- preparing lists of products subject to mandatory certification;
- performing state control and supervision over observance of mandatory certification rules and certified products.

"The Provisions on Federal mining and industrial supervision in Russia" specifies:

- state regulation of industrial safety and state supervision over high pressure vessels;
- requirements to safe activities, production and usage of equipment;
- consideration and agreement of draft standards containing requirements to safe activities, production and usage of equipment under control;
- licensing of specific types of activities relevant to higher hazard of production and activities (design, construction and operation of industrial explosive and mining productions, main gas, oil, and product lines as well as boilers, vessels and pipelines operating under pressure, production, installation and repair);
- control, observance of safety requirements in production, installation, repair and usage (including steam boilers and vessels operating under pressure exceeding 0.7 kg/cm^2, water heating boilers with heating temperature exceeding 115°C;
- registration of entities using these products and their checking;
- special permitting, supervisory and control functions.

Authorities in terms of specific types of activities in standardization, metrology and certification between GOSSTANDART of Russia and the State supervision body of Russia are specified by the Agreement on their interaction in the area of certification and approval of productions.

3. Normative documents on high pressure vessels (national standards, corresponding international standards, other normative documents. Rules of the State supervision body of Russia).

A set (more than 50) of normative documents (state and branch standards) on design, production, test methods, acceptance and delivery of vessel equipment is currently available in Russia.

Among them there is a number of state standards specifying general requirements and methods to calculate strength of vessels and their components, non-destructive control in their production and usage. Besides, available for vessels are also standards specifying rows of parameters, diameters and their volumes as well as requirements to their main components (bodies, bottoms, legs, glandes, pins).

OST 29-291 "Steel welded vessels and equipment. General technical requirements", specifying general requirements to structure, materials, production, test methods, acceptance and delivery of high pressure vessels, has been developed and is currently in force in the branch.

Along with this the State supervision body of Russia, responsible for the safe usage of vessels and equipment, has developed "Rules for the safe usage of high pressure vessels" now in force. This document specifying equipment, operating under pressure over 0.7 kgs/cm^2, establishes rights, duties, and responsibilities of designing bodies, manufacturers and enterprises, which use vessels. It contains a number of technical requirements to the structure of vessels, their production, testing and usage.

All requirements specified in state and branch standards are in full conformity with the "Rules" of the State supervision body of Russia and agreed upon as specified.

ASME Code is valid for high pressure vessels in the USA. This standards specifies technical requirements, requirements to materials, strength calculations, requirements to production, testing and acceptance of products.

Comparison of Russian standards and ASME Code shows their close similarity both in the nomenclature of specified parameters and in the majority of values of specified parameters.

Main divergences are as follows:

- the American standard specifies greater strength (1.2 - 1.8 times greater than the Russian normative documents);
- strength calculation methods are different;
- the American standard specifies more stringent requirements to materials, including welding

ones;

- standards and rules of the State supervision body of Russia specify more stringent requirements to the volume of control of weld joints.

4. Approach to the solution of quality systems certification in productions manufacturing high pressure vessels on the basis of ISO 9000 series standards.

As is known, enterprises through quality systems certification can:

- expand export opportunities and satisfy internal needs in high-quality products;
- increase consumer confidence;
- simplify products certification.

Certification of products including verification of production as a certification scheme element is currently approved in Russia in production of machine-building products including high pressure vessels.

Recognition by the Russian side of quality systems certification of high pressure vessels manufactured in the USA should be studied in the course of cooperation.

5. Main cooperation trends to be suggested.

a) Exchange of normative documents;

b) Study of normative documents;

c) Harmonization of norms and requirements;

d) Development of procedure for the recognition of quality systems certificates on the basis of ISO 9000 series standards.

[Copies of two slides used follow]

Figure 1

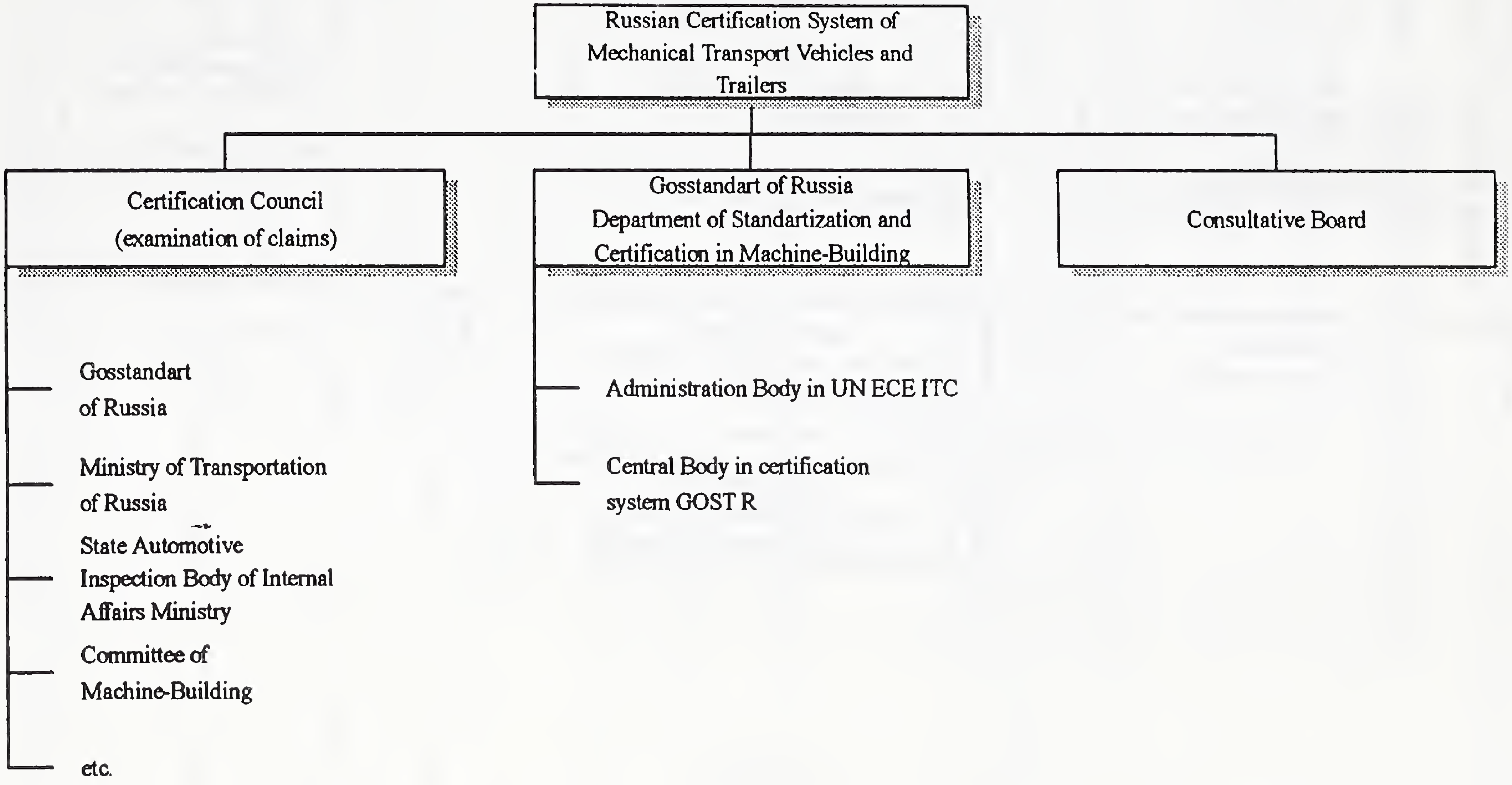
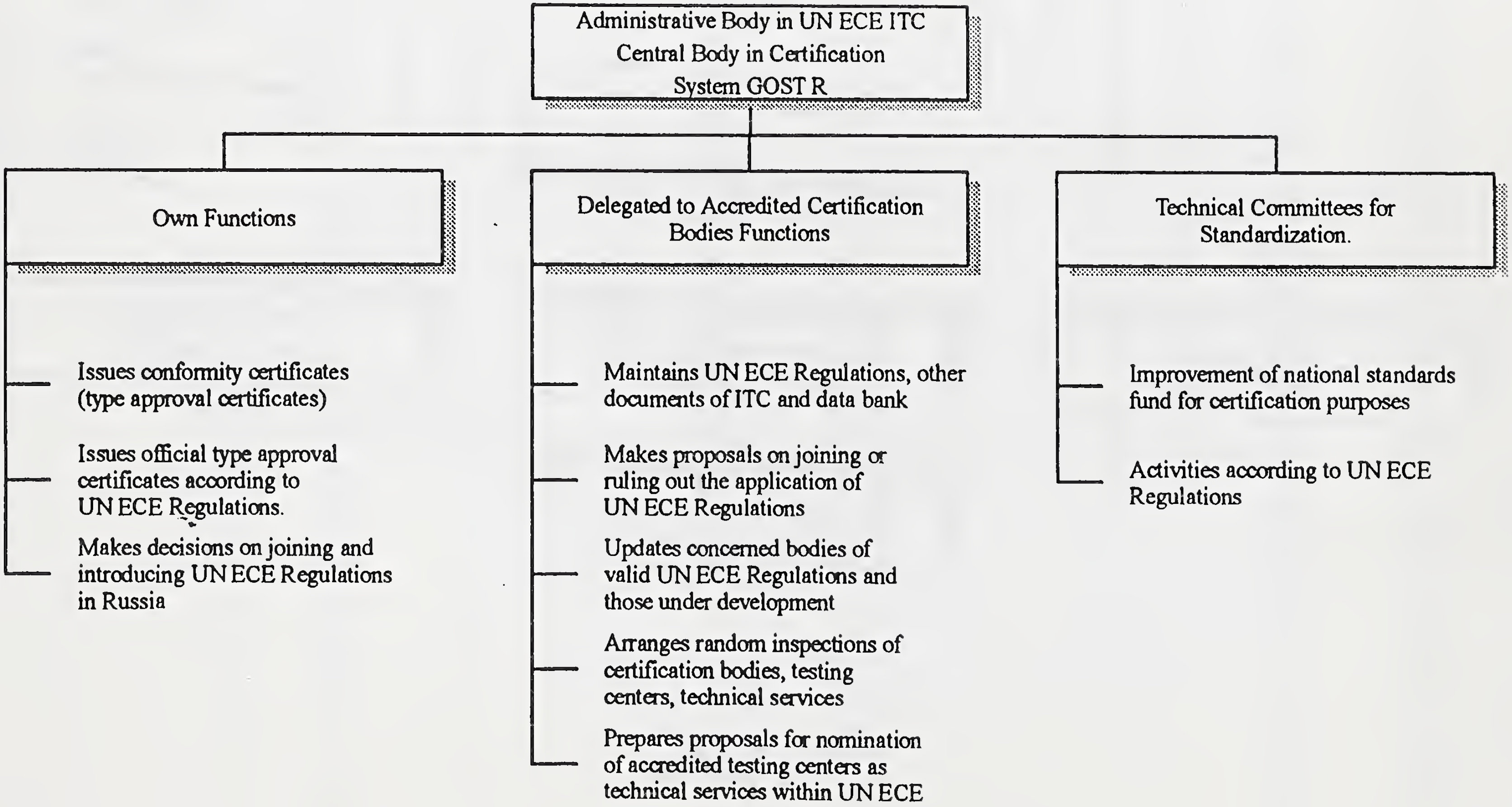

Russian Certification System of Mechanical Transport Vehicles and Trailers
Certification Council (examination of claims)
Gosstandart of Russia Department of Standartization and Certification in Machine-Building
Consultative Board
Gosstandart of Russia
Ministry of Transportation of Russia
State Automotive Inspection Body of Internal Affairs Ministry
Committee of Machine-Building
etc.
Administration Body in UN ECE ITC
Central Body in certification system GOST R

Figure 2


Administrative Body in UN ECE ITC
Central Body in Certification
System GOST R
Own Functions
Issues conformity certificates (type approval certificates)
Issues official type approval certificates according to UN ECE Regulations.
Makes decisions on joining and introducing UN ECE Regulations in Russia
Delegated to Accredited Certification Bodies Functions
Maintains UN ECE Regulations, other documents of ITC and data bank
Makes proposals on joining or ruling out the application of UN ECE Regulations
Updates concerned bodies of valid UN ECE Regulations and those under development
Arranges random inspections of certification bodies, testing centers, technical services
Prepares proposals for nomination of accredited testing centers as technical services within UN ECE
Technical Committees for Standardization.
Improvement of national standards fund for certification purposes
Activities according to UN ECE Regulations

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Certification of Products and Services in the Russian Federation

Dr. Viktor N. Smirnov, Deputy Head
Department for Technical Policy in Certification
Committee of the Russian Federation
for Standardization, Metrology and Certification

Certification activity in the Russian Federation is based on several laws, such as the law "On consumer rights protection", the law "On certification of products and services". As you heard here, there are other several laws covering separate types of products. To describe all the picture, I would like to add additional laws: "On telecommunications", and "On information, informatization and information protection", which were passed in the January of 1995; there are also laws "On weapons", and "On fire safety". This is a legal foundation of products and services certification activity in the Russian Federation at the present day.

There are several goals of certification, as specified in these laws:

- to create appropriate conditions for business activity of enterprises and entrepreneurs at the Russian marketplace and for Russian exporters abroad;
- assistance to consumers in the competent products choice of products and services;
- safety control of domestic and imported products against requirements for the life, health, property and environment protection.

In accordance with these ends, GOSSTANDART of Russia is in charge of:

- shaping and implementing the state policy in certification areas, specifying of general rules and recommendations how to certify within Russian Federation;
- registering of certification systems and marks of conformity in force in the Russian Federation;
- publishing of official information in this area;
- representing the country in international and regional certification organizations as the national certification body.

Pursuant to these laws, GOSSTANDART worked out and approved "Certification rules in the Russian Federation" and "Rules of the certification system GOST R". The rules and procedures for certification of products and services are harmonized with the ISO/IEC Guide on certification, and ISO 9000 and 10000. Thus, in addition to consumer rights protection, these documents also serve for the end of eliminating of technical barriers in the international trade and excluding discrimination in respect to overseas producers.

Russia has joined four international certification systems for electrical appliances and electronic components, based on IECEE standards; for motor vehicles and trailers, based on UN EEC Rules; for small arms and cartridges, based on the Brussels Convention.

Certification in Russia can be both mandatory and voluntary. Mandatory certification is carried out in cases specified by legislative acts. The arrangements of mandatory certification activity rests on GOSSTANDART and other governmental agencies in accordance with their jurisdiction. The most developed mandatory certification system is the system named GOST R, that is controlled by GOSSTANDART.

Subject to mandatory certification at the present time are:

- products and services for meeting personal needs, if standards for these products and services specify safety requirements to human life, health, property and environment;

- sports and hunting arms and cartridges.

The law "On labor protection" also specifies certification of labor means for safety requirements.

Verifying characteristics and using methods while certifying products and services as specified by rules make it possible to:

Firstly, tho identify products, their belonging to specific type, conformity to technical documents and origin;

Secondly, to fully and reliably confirm compliance with safety requirements.

For these purposes the appropriate certification schemes, providing required evidence, are applied. They correspond to schemes used in international practice.

By now, 2000 certification bodies and testing laboratories are accredited in Russia. Widely applied for the creation of this technical base are testing facilities available in industries, scientific entities and entrepreneurial structures. Thus, required conditions have been created to certify food products, household radio and electrical equipment, transport vehicles, goods for children, household chemical products, furniture and other products.

Voluntary certification goes along with the mandatory certification in Russia. GOSSTANDART of Russia has registered 27 voluntary certification systems. Among them are:

- certification system for polymeric and composite materials and their products;

- certification system for chemical composition of substances and materials;
- certification system for bioactive substances;
- certification system for processing equipment in agricultural sectors;
- certification system for jewelry.

Great consideration is now given by Gosstandart of Russia to the conformity of the requirements as specified in ISO 9000 series standards and national standards. Personnel training is taking place including training in overseas organizations having recognized practical expertise and appropriate scientific developments. Quality systems certification is recognized as a preferential certification scheme in production of food goods, especially, perishable ones, in production of an array of products but in low volumes, in providing services, etc.

We understand that all work being done in human safety and that of environment should be low based. Therefore, to further the certification program it is envisaged to prepare such laws as "On food products", "On safe goods for children", "On packaging and marking of consumer products in trade and services".

Thus, products and services are certified in Russia on the basis as recognized world-wide, namely:

- available required legislation;

- competence and independence of certification bodies and testing laboratories;

- similar requirements to domestic and foreign participants in certification and to products, i.e., absence of any discrimination;

- harmonization of certification rules and methods with international requirements and rules;

- reciprocal interaction with certification systems operating in countries with developed market economy.

The accreditation system is now under development in Russia to ensure confidence and provide objective evaluation of certification bodies, testing laboratories and other entities for their suitability.

Objects of the Russian accreditation system are as follows: testing laboratories, certification bodies for products, services, productions and quality systems, state testing centers for measuring equipment, metrological services, educational establishments and personnel training bodies.

The accreditation system specifies:

- requirements to accredited entities;

- rules for their accreditation;
- rules for registration and inspection control over the activities of accredited entities.

The system makes it possible to use ISO/IEC guides on accreditation, i.e., guides 35, 38, 39, 40, 43, 54, 55 and European standards EN 45002 and EN 45003.

Accrediting bodies do not allow to blend accreditation activity with that done directly in the area under accreditation. Besides, accrediting bodies shape technical policy in accreditation and control its implementation, but are not directly involved in the activities of accredited bodies.

General principles and rules of the Russian accreditation system are implemented and made specific by appropriate accrediting bodies.

Accreditation methods should be clearly documented.

The participants of the Russian accreditation system are GOSSTANDART of Russia and other accrediting bodies, technical centers and technical committees for accreditation, enterprises, entities and organizations, experts.

The scheme for the Russian accreditation system is given in the first slide.

GOSSTANDART of Russia develops principles specifying the uniform technical policy in accreditation including:

- general rules and recommendations on accreditation;

- maintaining state registration of accreditation systems and cooperating with international and foreign accreditation organizations.

The functions of GOSSTANDART of Russia and other accrediting bodies are as follows:

- specifying and approving requirements to entities to be accredited and rules of their accreditation;

- accrediting entities and issuing accreditation certificates;

- publishing official information on the accredited entities.

To coordinate accreditation activities the Interagency Accreditation Council has been set up (hereinafter referred to as Council). The Council should protect interests of all concerned parties, participating in accreditation. Represented in the Council for this purpose are federal executive authorities, scientific and public organizations, the activities of which are relevant to accreditation.

The functions of the Council are as follows:

- giving consideration to the principles, ensuring uniform technical policy in the field of accreditation;

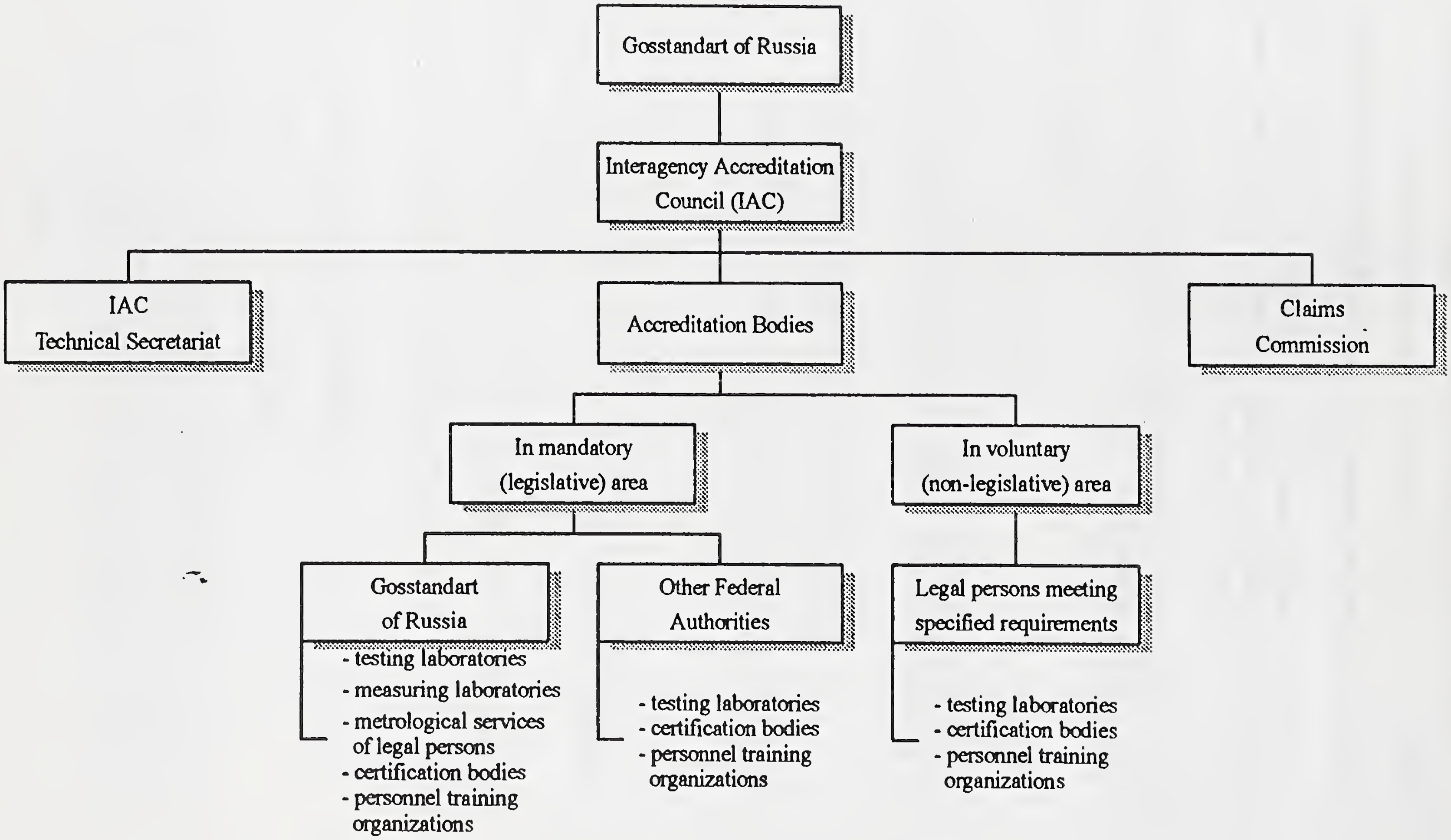
- specifying basic directions for research activities in the area of accreditation.

To coordinate follow-up, arrange meetings, take decisions on claims and other problems the Council establishes the technical secretariat, claims commissions, working groups and commissions.

The performing bodies are the technical committees and technical accreditation centers for specific types of activities (Slide 2).

[Copies of 2 slides used follow]

Slide 1



Gosstandart of Russia

Interagency Accreditation Council (IAC)

IAC Technical Secretariat

Accreditation Bodies

Claims Commission

In mandatory (legislative) area

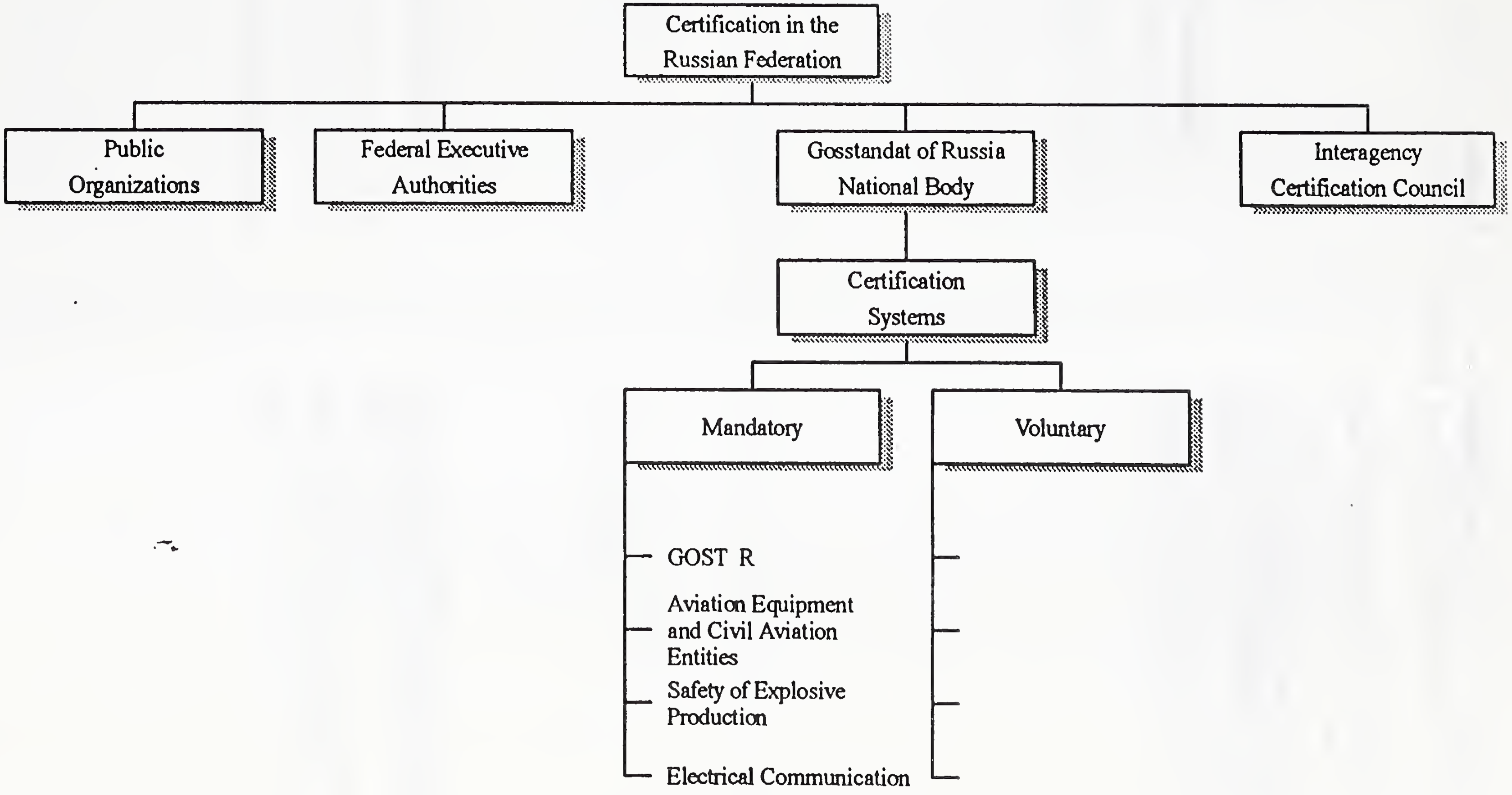
In voluntary (non-legislative) area

Gosstandart of Russia
- testing laboratories
- measuring laboratories
- metrological services of legal persons
- certification bodies
- personnel training organizations

Other Federal Authorities
- testing laboratories
- certification bodies
- personnel training organizations

Legal persons meeting specified requirements
- testing laboratories
- certification bodies
- personnel training organizations

Slide 2



Certification in the Russian Federation

Public Organizations

Federal Executive Authorities

Gosstandat of Russia National Body

Interagency Certification Council

Certification Systems

Mandatory

Voluntary

GOST R

Aviation Equipment and Civil Aviation Entities

Safety of Explosive Production

Electrical Communication

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

The Registrar Accreditation Board

George Q. Lofgren, President
Registrar Accreditation Board

[Copies of 31 slides used follow]

- BACKGROUND
- PROGRAMS
- MUTUAL RECOGNITION STATUS
- INTERNATIONAL ACCREDITATION FORUM
- ISO ACTIVITY
- RAB AUTHORITY

- OUTLINE OF TALK
- BACKGROUND - OF RAB; WHY IT WAS CREATED
- PROGRAMS - WHICH RAB OPERATES
- MUTUAL RECOGNITION STATUS - OF THE VARIOUS RAB PROGRAMS
- INTERNATIONAL ACCREDITATION FORUM - WHAT IT IS, WHAT IT DOES
- ISO ACTIVITY - WHICH RAB IS INVOLVED IN
- HOW RAB IS AUTHORIZED TO ACT AS THE U.S. ACCREDITATION BODY

ISO 9000 SERIES
MAY 1987

ANSI/ASQC SERIES
AUGUST 1987

AFTER EIGHT YEARS OF DEVELOPMENT, THE ISO 9000 SERIES OF STANDARDS WAS PUBLISHED IN MAY OF 1987.

THE U.S. MEMBERS OF THE ISO COMMITTEE THAT DEVELOPED THE ISO 9000 STANDARDS WERE AT THE SAME TIME DEVELOPING THE U.S. VERSION OF THOSE STANDARDS - SO THE ANSI/ASQC Q90 SERIES STANDARDS WERE PUBLISHED ONLY THREE MONTHS AFTER THE ISO 9000 SERIES.

LAST SUMMER, THE 1994 REVISIONS TO THE ISO 9000 SERIES WERE PUBLISHED. WITHIN A MONTH, THE U.S. ADOPTIONS WERE PUBLISHED AND ARE NOW IDENTIFIED AS THE ANSI/ASQC Q9000 SERIES.

ASQC FORESAW REGISTRATION

- 1988 FEASIBILITY STUDY

BECAUSE OF THE INTIMATE INVOLVEMENT OF ASQC AND ITS MEMBERS IN THE INITIAL DEVELOPMENT OF THE STANDARDS, ASQC COULD SEE THAT THE ISO 9000 STANDARDS WOULD BE USED, NOT ONLY FOR INTERNAL QUALITY MANAGEMENT WITHIN A COMPANY,

AND FOR QUALITY ASSURANCE BETWEEN BUYER AND SELLER, (AS THEY WERE DESIGNED TO BE USED,)

BUT THAT THEY WOULD ALSO BE USED FOR THIRD-PARTY REGISTRATION OF QUALITY SYSTEMS.

AND SO ASQC, IN 1988, A YEAR AFTER THE STANDARDS WERE FIRST PUBLISHED, LOOKED INTO BECOMING A REGISTRAR, A THIRD-PARTY CERTIFIER OF QUALITY SYSTEMS.

NEED FOR ASSURANCE OF COMPETENCE

- 1989 - ASQC FOUNDS RAB

AFTER EVALUATING FEASIBILITY STUDY RESULTS, ASQC DETERMINED THAT IT WOULD BE INAPPROPRIATE FOR THE QUALITY PROFESSIONAL SOCIETY TO BECOME A REGISTRAR. ASQC DID SEE A DEFINITE NEED FOR AN INDEPENDENT ORGANIZATION TO ASSURE THAT REGISTRARS ARE COMPETENT TO PERFORM THIRD-PARTY REGISTRATIONS.

AND SO, IN 1989, ASQC FORMED AN AFFILIATE ORGANIZATION, THE REGISTRAR ACCREDITATION BOARD, TO PROVIDE THAT ASSURANCE.

RAB IS A NOT-FOR-PROFIT CORPORATION, INCORPORATED SEPARATELY FROM ASQC.

RAB PURPOSE:

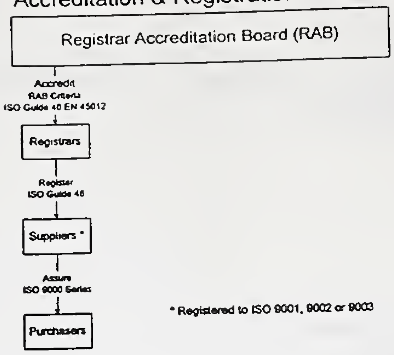
PROVIDE ASSURANCE OF THE COMPETENCE AND RELIABILITY OF THIRD-PARTY ORGANIZATIONS WHICH ASSESS AND REGISTER SUPPLIER QUALITY SYSTEMS TO THE REQUIREMENTS OF RECOGNIZED STANDARDS.

RAB'S PURPOSE IS TO -

PROVIDE ASSURANCE OF THE COMPETENCE AND RELIABILITY OF THIRD-PARTY ORGANIZATIONS (REGISTRARS) WHICH ASSESS AND REGISTER SUPPLIER QUALITY SYSTEMS TO THE REQUIREMENTS OF RECOGNIZED STANDARDS - MOST PARTICULARLY THE ISO 9001, 9002 AND 9003 STANDARDS...

AND DOES THIS THROUGH THE MECHANISM OF ACCREDITATION.

Accreditation & Registration Process



Registrar Accreditation Board (RAB)

Accredit
RAB Criteria
ISO Guide 40 EN 45012

Registrars

Register
ISO Guide 46

Suppliers *

Assure
ISO 9000 Series

Purchasers

* Registered to ISO 9001, 9002 or 9003

RAB ACCREDITS REGISTRARS USING CRITERIA THAT ARE BASED ON INTERNATIONALLY RECOGNIZED STANDARDS AND GUIDES.

REGISTRARS, IN TURN, ASSESS AND REGISTER SUPPLIERS ACCORDING TO INTERNATIONALLY RECOGNIZED GUIDES AND STANDARDS.

THROUGH THIS CHAIN, PURCHASERS CAN HAVE ASSURANCE THAT SUPPLIERS THAT ARE REGISTERED BY ACCREDITED REGISTRARS HAVE IMPLEMENTED PROPER QUALITY SYSTEMS, AS DEFINED BY THE ISO 9000 STANDARDS.

ANSI-RAB JOINT PROGRAM

- RAB
  - -ADMINISTERS PROGRAM
- ANSI
  - -DUE PROCESS, PUBLIC REVIEW
  - -INTERNATIONAL, GOVERNMENT

THE U.S. ACCREDITATION PROGRAM IS OPERATED JOINTLY BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) AND RAB.

RAB PERFORMS ACTIVE ADMINISTRATION OF THE PROGRAM, INCLUDING INITIAL ACCEPTANCE OF APPLICATIONS, ASSESSMENT OF REGISTRARS, DECISIONS ON ACCREDITATION, GRANTING ACCREDITATION AND ONGOING SURVEILLANCE.

ANSI PROVIDES:

-DUE PROCESS AND PUBLIC REVIEW OF THE JOINT PROGRAM CRITERIA AND PROCEDURES,

-PUBLIC NOTICE OF APPLICANTS FOR ACCREDITATION, AND

-THE PRIMARY FOCUS ON INTERNATIONAL AND GOVERNMENT RELATIONS.

REGISTRAR ACCREDITATION

• ACCREDITED	27
• APPLICANTS	9

WHERE DOES THE PROGRAM STAND TODAY?

THERE ARE CURRENTLY....

27 REGISTRARS ACCREDITED UNDER THE ANSI-RAB PROGRAM AND 9 REGISTRARS IN VARIOUS STAGES OF THE ACCREDITATION PROCESS.

GROWING USE OF ISO 9000

- 2,831 REGISTRATIONS GRANTED IN 1994
- TOTAL REGISTRATIONS OVER 5,500
- INDUSTRY LEADERS:
  - -ELECTRONICS
  - -CHEMICALS
  - -INDUSTRIAL AND COMMERCIAL MACHINERY

THE ACCEPTANCE AND USE OF THE ISO 9000 STANDARDS IS INCREASING RAPIDLY IN THE U.S. IN 1994, 2,831 REGISTRATIONS WERE GRANTED TO U.S. SUPPLIERS, BRINGING THE U.S. TOTAL TO APPROXIMATELY 5,800.

CERTAIN AREAS OF INDUSTRY ARE LEADING THE WAY IN ACHIEVING ISO 9000 REGISTRATION. THE TOP SECTORS INCLUDE: ELECTRONICS, CHEMICALS AND INDUSTRIAL AND COMMERCIAL MACHINERY.

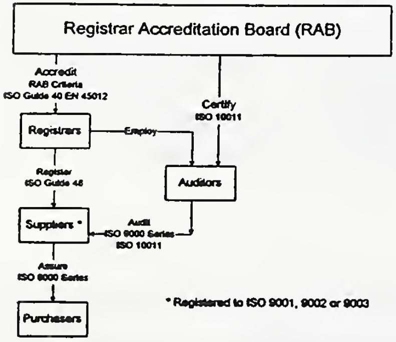
QS-9000 DEVELOPMENTS

- QUALITY SYSTEM REQUIREMENTS FOR SUPPLIERS
- ISO 9001 PLUS INDUSTRY SPECIFIC REQUIREMENTS
- RAB ONE OF THREE ACCREDITATION BODIES

LAST YEAR, THE BIG THREE AUTOMAKERS (CHRYSLER, FORD AND GENERAL MOTORS) RELEASED A COMMON SET OF QUALITY SYSTEM REQUIREMENTS FOR THEIR SUPPLIERS. THE REQUIREMENTS INCLUDE ISO 9001 VERBATIM, PLUS ADDITIONAL INDUSTRY SPECIFIC REQUIREMENTS. QS-9000 WILL IMPACT NEARLY 13,000 FIRST-TIER, NORTH AMERICAN SUPPLIERS.

RAB IS ONE OF THREE ACCREDITATION BODIES WORKING WITH THE BIG THREE ON THE QS-9000 PROGRAM. UNDER AN AGREEMENT WITH THE AUTOMAKERS, AN RAB ACCREDITED REGISTRAR MAY COMPLETE ADDITIONAL STEPS TO BECOME "QUALIFIED" TO CONDUCT QS-9000 AUDITS FOR NORTH AMERICAN SUPPLIERS.

Accreditation & Registration Process



SINCE AUDITING IS AT THE HEART OF THE REGISTRATION PROCESS, IT IS ESSENTIAL THAT AUDITORS BE PROPERLY QUALIFIED.

BEFORE 1992, THERE WAS NO U.S. SYSTEM FOR PROVIDING SUCH ASSURANCES FOR INDIVIDUAL AUDITORS, SO RAB PUT IN PLACE A CERTIFICATION PROGRAM FOR AUDITORS OF QUALITY SYSTEMS, AGAIN BASED ON INTERNATIONALLY RECOGNIZED STANDARDS.

AUDITOR CERTIFICATION

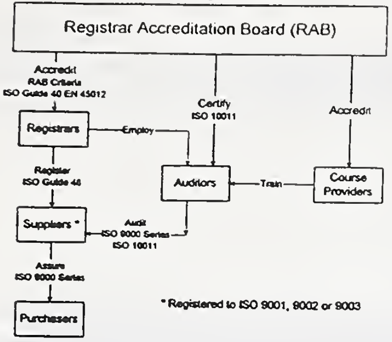
- CERTIFICATIONS

QS-PA	562
QS-A	401
QS-LA	1263
	2226

THIS PROGRAM HAS GROWN RAPIDLY.

SINCE ITS INTRODUCTION IN 1992, RAB'S PROGRAM HAS ISSUED MORE THAN 2,200 CERTIFICATIONS IN THREE GRADES: QUALITY SYSTEMS PROVISIONAL AUDITOR, QUALITY SYSTEMS AUDITOR, AND QUALITY SYSTEMS LEAD AUDITOR.

Accreditation & Registration Process



ONE OF THE QUALIFICATION REQUIREMENTS FOR CERTIFICATION AS AN AUDITOR IS PROPER TRAINING.

TO GAIN ASSURANCE THAT THE TRAINING RECEIVED MEETS THE NEEDS OF U.S. AUDITORS, RAB HAS ESTABLISHED REQUIREMENTS THAT TRAINING PROVIDERS MUST MEET...

AND ACCREDITS THOSE COURSE PROVIDERS THAT MEET THESE REQUIREMENTS.

COURSE ACCREDITATION

	ACCREDITATIONS	APPS
• AUDIT TRAINING ISO 9001 TRAINING EXAMINATION	7	3
• ISO 9001 TRAINING EXAMINATION	3	1

TWO TYPES OF COURSES MAY BE ACCREDITED BY RAB:

-A FULL, 36-HOUR COURSE, WHICH INCLUDES TRAINING IN THE PRINCIPLES OF AUDITING, AS WELL AS IN THE ISO 9001 STANDARD.

SEVEN SUCH COURSES HAVE BEEN ACCREDITED TO DATE, WITH THREE ADDITIONAL APPLICATIONS IN VARIOUS STAGES OF ASSESSMENT.

-THE SECOND TYPE IS A 16-HOUR COURSE, WHICH CONCENTRATES ON THE ISO 9001 STANDARD FOR THOSE WHO HAVE DEMONSTRATED THEIR KNOWLEDGE OF AUDITING BY VIRTUE OF CERTIFICATION BY ASQC AS A QUALITY AUDITOR (CQA).

THREE OF THESE COURSES HAVE BEEN ACCREDITED, WITH ONE ADDITIONAL APPLICANT.

BOTH TYPES OF COURSES REQUIRE A COMPREHENSIVE EXAMINATION.

INTERNATIONAL RECOGNITION -
REGISTRAR ACCREDITATION

MEMORANDUM OF UNDERSTANDING
-MOU

- RvC
- NACCB
- JAS-ANZ
- JAB
- SINCERT

A MAJOR CONCERN OF MANY SUPPLIERS IS HAVING THEIR REGISTRATIONS RECOGNIZED IN MORE THAN JUST THEIR HOME COUNTRY.

ANSI AND RAB ARE WORKING IN SEVERAL AREAS TO ACHIEVE THIS.

AT THE ACCREDITATION BODY LEVEL, ANSI AND RAB HAVE SIGNED MEMORANDUMS OF UNDERSTANDING OR MOUs WITH OUR COUNTERPART ACCREDITATION BODIES IN:

-THE NETHERLANDS
-THE UK,
-AUSTRALIA AND NEW ZEALAND,
-JAPAN, AND
-ITALY

MEMORANDUM OF UNDERSTANDING (MOU)

- ACKNOWLEDGE EACH OTHER'S ROLE
- RECOGNIZE NEED FOR EQUIVALENCE
- ACKNOWLEDGE DESIRABILITY OF MUTUAL RECOGNITION
- AGREE ON PROGRAM TO ACHIEVE MUTUAL RECOGNITION

THESE MOUs:

-ACKNOWLEDGE THAT EACH IS THE APPROPRIATE PARTY TO DEAL WITH ON ACCREDITATION MATTERS;

-RECOGNIZE THAT THERE IS A NEED FOR EQUIVALENCE IN THE WAY THAT ACCREDITATION SYSTEMS ARE OPERATED;

-ACKNOWLEDGE THAT THE PARTIES WISH TO ACHIEVE MUTUAL RECOGNITION OF EACH OTHER'S ACCREDITATION SYSTEMS;

AND FINALLY...

-AGREE ON STEPS THAT WILL BE TAKEN TO ACHIEVE THAT MUTUAL RECOGNITION.

INTERNATIONAL ACCREDITATION FORUM (IAF)

- ORIGIN
- FORMATION
- AGREE ON DESIRABILITY OF MUTUAL RECOGNITION

ON A BROADER SCENE, RAB AND ANSI WERE INSTRUMENTAL IN BRINGING TOGETHER THE WORLD'S LEADING ACCREDITATION BODIES AND FORMING THE INTERNATIONAL ACCREDITATION FORUM.

-THROUGH OUR WORK WITH OTHER ACCREDITATION BODIES WE SAW DIFFERENCES IN APPROACH AND INTERPRETATION, AND SO FELT THE NEED FOR DIRECT DISCUSSION OF ISSUES OF COMMON CONCERN TO ALL ACCREDITATION BODIES.

-SO IN 1993, REPRESENTATIVES OF THE MAJOR ACCREDITATION BODIES MET INFORMALLY, BUT QUICKLY DECIDED TO CONTINUE DIALOGUE ON AN ONGOING BASIS, AND FORMED THE INTERNATIONAL ACCREDITATION FORUM (IAF).

-A KEY AGREEMENT REACHED AT THE INITIAL MEETING WAS THE DESIRABILITY OF MUTUAL RECOGNITION AMONG ACCREDITATION BODIES.

-THE IAF WILL SOON BECOME A FORMAL ORGANIZATION WITH AN ELECTED CHAIRMAN, VICE CHAIR AND OTHER EXECUTIVE MEMBERS SO THAT THE FORUM'S WORK CAN CONTINUE BETWEEN GENERAL MEETINGS.

IAF CONTINUED...

- PURPOSE - DISCUSSIONS TO ACHIEVE EQUIVALENCE
- MEMBERSHIP

AUS-NZ
BRAZIL
CANADA
CHINA
GERMANY
ITALY
JAPAN
KOREA
NETHERLANDS
SWEDEN
SWITZERLAND
UK
US

THE PURPOSE OF IAF IS TO PROVIDE A FORUM IN WHICH ACCREDITATION BODIES MAY DISCUSS PRACTICES AND ISSUES OF COMMON CONCERN, SO THAT WE MAY REDUCE THE VARIABILITY IN ACCREDITATION AND REGISTRATION PRACTICES, AND THUS ACHIEVE EQUIVALENCE IN THE OPERATION OF REGISTRATION AND CERTIFICATION PROGRAMS.

IAF WAS NOT FORMED WITH THE INTENTION OF OPERATING A SYSTEM OF MUTUAL RECOGNITION FOR ACCREDITATION BODIES. IAF PREFERS FOR THIS TO BE DONE IN THE ISO ENVIRONMENT.

IAF MEMBERSHIP INCLUDES OPERATING ACCREDITATION BODIES FROM THESE COUNTRIES, PLUS OBSERVERS FROM OTHER COUNTRIES WHICH ARE IN THE PROCESS OF ESTABLISHING ACCREDITATION BODIES.

IAF CONTINUED...

- DISCUSSION SUBJECTS
  - -PHASE-IN OF ISO 9000 REVISIONS
  - -REGISTRAR CONFLICT OF INTEREST
  - -MISLEADING ADVERTISING
  - -MUTUAL RECOGNITION

HERE'S A SAMPLE OF THE ISSUES THAT HAVE BEEN AND ARE BEING DISCUSSED WITHIN IAF:

-HOW SHOULD THE 1994 REVISIONS TO THE ISO 9000 STANDARDS BE PHASED IN?

-WHAT CONSTITUTES CONFLICT OF INTEREST BY REGISTRARS, AND HOW SHOULD THIS BE DEALT WITH?

-HOW SHOULD MISLEADING ADVERTISING ON ISO 9000 REGISTRATION BE DEALT WITH?

-WHAT SYSTEM SHOULD BE USED FOR MUTUAL RECOGNITION OF ACCREDITATION BODIES?

ISO DEVELOPS STANDARDS FOR PRODUCTS AND ACTIVITIES

CASCO DEVELOPS GUIDES FOR CONFORMITY ASSESSMENT

ISO DEVELOPS STANDARDS FOR PRODUCTS AND ACTIVITIES, WHILE CASCO (THE ISO COMMITTEE ON CONFORMITY ASSESSMENT) DEVELOPS GUIDES FOR ASSESSING IF THE STANDARDS ARE BEING FOLLOWED.

BUT NEITHER ISO NOR CASCO HAS CONCERNED ITSELF WITH PUTTING THE STANDARDS AND GUIDES INTO PRACTICE, UNTIL...

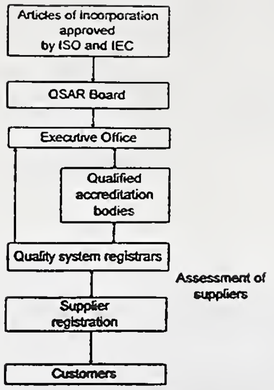
ISO/CASCO

- WORLDWIDE RECOGNITION OF ISO 9000 QUALITY SYSTEM REGISTRATIONS
- ISO/IEC JOINT PLANNING GROUP - OSAR

(UNTIL)... 1992 WHEN ISO ASKED CASCO TO MAKE A RECOMMENDATION FOR AN ISO SYSTEM WITHIN WHICH A SINGLE ISO 9000 REGISTRATION WOULD BE RECOGNIZED WORLDWIDE.

CASCO RECOMMENDED THAT SUCH A SYSTEM BE DEVELOPED, AND SO ISO AND IEC FORMED A JOINT PLANNING GROUP ON "QUALITY SYSTEM ASSESSMENT RECOGNITION" OR QSAR.

AN RAB OFFICER WAS NAMED AS ONE OF THE 10 PEOPLE COMPRISING THIS GROUP, WHICH DEVELOPED A PROPOSAL FOR A WORLDWIDE SYSTEM FOR RECOGNITION OF QUALITY SYSTEM REGISTRATIONS.


Articles of incorporation approved by ISO and IEC
QSAR Board
Executive Office
Qualified accreditation bodies
Quality system registrars
Assessment of suppliers
Supplier registration
Customers

UNDER THE QSAR SYSTEM, AN ACCREDITATION BODY, SUCH AS RAB, CAN BE "QUALIFIED" THROUGH A PROCESS WHICH INCLUDES PEER REVIEW BY REPRESENTATIVES OF THREE OTHER ACCREDITATION BODIES.

REGISTRARS CAN BECOME MEMBERS OF THE SYSTEM BY VIRTUE OF THEIR ACCREDITATION BY A QUALIFIED ACCREDITATION BODY.

ACCREDITATION BODIES AND REGISTRARS THAT ARE MEMBERS OF THE SYSTEM, AND THEIR REGISTERED SUPPLIERS, WILL BE AUTHORIZED TO USE AN ISO/IEC QSAR LOGO. COMMON USE OF THIS MARK WILL BE THE KEY TO WIDESPREAD RECOGNITION AND ACCEPTANCE OF QUALITY SYSTEM REGISTRATIONS.

OSAR START-UP

- APPLICATIONS ACCEPTED MID TO LATE 1995
- STAFF RECRUITED
- BOARD MEMBERS NOMINATED
- RULES AND PROCEDURES APPROVED

THE PROPOSAL HAS BEEN ACCEPTED BY ISO AND IEC. THE IMPLEMENTATION SCHEDULE CALLS FOR THE PROGRAM TO BEGIN ACCEPTING APPLICATIONS FOR MEMBERSHIP FROM NATIONAL ACCREDITATION BODIES BETWEEN JULY AND SEPTEMBER OF THIS YEAR.

ONCE 10 ACCREDITATION BODIES BECOME MEMBERS, A QSAR STAFF WILL BE RECRUITED AND NOMINATIONS MADE FOR MEMBERS OF THE QSAR BOARD OF DIRECTORS. THAT BOARD WILL THEN RECOMMEND OPERATING RULES AND PROCEDURES FOR THE SYSTEM TO BE APPROVED BY ISO/IEC.

FACTORS TO FACILITATE OSAR'S SUCCESS

- CREATES FRAMEWORK FOR INTERNATIONAL RECOGNITION
- OPERATED BY STAKEHOLDERS
- CONTROLLED BY ISO AND IEC

THE QSAR SYSTEM WILL BE VOLUNTARY AND ITS SUCCESS WILL BE FACILITATED BY THREE FACTORS.

FIRST, THE PROGRAM RESPONDS TO A MARKET REQUIREMENT CREATING A FRAMEWORK FOR THE INTERNATIONAL RECOGNITION OF ISO 9000 CERTIFICATES THAT SUPPLIERS NEED.

SECONDLY, QSAR WILL BE RUN BY THOSE WITH A DIRECT STAKE IN ITS ACTIVITY. BOARD MEMBERS WILL INCLUDE REPRESENTATIVES OF SUPPLIERS, ACCREDITATION BODIES AND REGISTRARS.

FINALLY, THE QSAR SYSTEM WILL BE UNDER THE CONTROL OF ISO AND IEC, TWO WELL ESTABLISHED AND RESPECTED ORGANIZATIONS.

INTERNATIONAL RECOGNITION - AUDITOR CERTIFICATION

MUTUAL RECOGNITION AGREEMENT (MRA)

- RAB
- IRCA
- OSA AND JAS-ANZ

ALL QUALITY SYSTEM REGISTRATIONS ARE BASED ON AUDITS OF THE QUALITY SYSTEM. SO GLOBAL ASSURANCE OF THE QUALIFICATIONS OF AUDITORS IS VITAL IF THOSE REGISTRATIONS ARE TO BE GLOBALLY RECOGNIZED.

TO PROVIDE THIS GLOBAL ASSURANCE, THE MAJOR AUDITOR CERTIFICATION BODIES ARE NOW AT WORK DEVELOPING UNIFORM REQUIREMENTS FOR CERTIFICATION OF AUDITORS - TO BE USED BY ALL AUDITOR CERTIFICATION BODIES.

WHILE THESE REQUIREMENTS ARE BEING DEVELOPED, THREE AUDITOR CERTIFICATION BODIES WHOSE PRESENT PROGRAMS ARE SIMILAR HAVE AGREED TO RECOGNIZE EACH OTHER'S AUDITORS.

-RAB
-INTERNATIONAL REGISTER OF CERTIFICATED AUDITORS (UK)
-QUALITY SOCIETY OF AUSTRALASIA (QSA)
-JOINT ACCREDITATION SYSTEM OF AUSTRALIA AND NEW ZEALAND (JAS-ANZ)

HAVE EACH AGREED TO ACCEPT AN AUDITOR CURRENTLY CERTIFIED BY ANY OTHER PARTY TO THE AGREEMENT AS IF THE AUDITOR WAS CERTIFIED IN A CORRESPONDING GRADE BY THE BODY ITSELF.

THIS MEANS, FOR EXAMPLE, THAT REGISTRARS ACCREDITED BY RAB MAY USE AUDITORS CERTIFIED BY QSA AND IRCA, AS WELL AS THOSE CERTIFIED BY RAB.

NOTE: THE UNIFORM REQUIREMENTS FOR CERTIFICATION OF AUDITORS, AND THE UNIFORM REQUIREMENTS FOR AUDITOR TRAINING COURSES ARE EXPECTED TO BE COMPLETED AND READY FOR ADOPTION BY ALL AUDITOR CERTIFICATION BODIES IN JULY OF 1995.

THIS WILL TAKE PLACE AT THE INAUGURAL MEETING OF THE INTERNATIONAL AUDITOR AND TRAINING CERTIFICATION ASSOCIATION. IATCA WILL BE COMPRISED OF AUDITOR CERTIFICATION BODIES THAT INTEND TO ACHIEVE FULL EQUIVALENCE OF OPERATIONS AND RECOGNIZE EACH OTHER, AND EACH OTHER'S AUDITOR CERTIFICATIONS, AS EQUIVALENT.

RAB AUTHORITY

- PRIVATE SECTOR
- VOLUNTARY
- ACKNOWLEDGED BY PEERS
- GOVERNMENT CONTROL NOT SOUGHT

RAB IS OFTEN ASKED WHO HAS AUTHORIZED IT TO ACCREDIT REGISTRARS.

AS STATED EARLIER, RAB IS A PRIVATE-SECTOR ORGANIZATION, FOUNDED BY ANOTHER PRIVATE-SECTOR ORGANIZATION, ASQC, TO MEET PRIVATE-SECTOR NEEDS. REGISTRARS APPLY FOR ACCREDITATION ON A VOLUNTARY BASIS, NOT BECAUSE OF GOVERNMENT MANDATE.

RAB HAS BEEN ACKNOWLEDGED BY THE ACCREDITATION BODIES OF OTHER COUNTRIES AS THE ACCREDITATION BODY THAT SPEAKS FOR THE U.S. THIS INCLUDES FORMAL ACKNOWLEDGMENT THROUGH MOUs WITH THE UK, ITALY, THE NETHERLANDS, JAPAN AND AUSTRALIA-NEW ZEALAND.

RAB DOES NOT SEEK OR DESIRE ANY FORM OF GOVERNMENT CONTROL OVER ITS ACTIVITIES IN ITS ROLE AS THE ACCREDITATION BODY SERVING THE U.S. PRIVATE SECTOR.

GOVERNMENT ROLE

- FOREIGN REGULATIONS

- U.S. GOVERNMENT GUARANTEE OF COMPETENCE - NVCASE

AT THE SAME TIME, IT IS RECOGNIZED THAT, IN ORDER FOR SUPPLIERS TO SELL CERTAIN PRODUCTS IN COUNTRIES WHERE THOSE PRODUCTS ARE REGULATED, IT MAY BE NECESSARY TO HAVE U.S. GOVERNMENT INVOLVEMENT.

THIS IS THE CASE, FOR EXAMPLE, WITH THE EUROPEAN UNION DIRECTIVES COVERING REGULATED PRODUCTS SUCH AS MACHINERY, MEDICAL DEVICES AND TELECOMMUNICATIONS EQUIPMENT.

TO SATISFY THE EU REQUIREMENT THAT A GOVERNMENT GUARANTEES THE COMPETENCE OF CERTIFICATION BODIES THAT CERTIFY PRODUCTS REGULATED IN THE EU, NIST HAS ESTABLISHED THE NVCASE PROGRAM.

NATIONAL VOLUNTARY CONFORMITY ASSESSMENT SYSTEM EVALUATION PROGRAM (NVCASE)

- RECOGNITION OF ACCREDITATION BODY BY NIST
- ACCREDITED CERTIFICATION BODY ELIGIBLE TO BE NAMED NOTIFIED BODY

UNDER THE "NATIONAL VOLUNTARY CONFORMITY ASSESSMENT SYSTEM EVALUATION" PROGRAM, THE PRIMARY MEANS OF PROVIDING THIS ASSURANCE OF COMPETENCE IS THROUGH FORMAL "RECOGNITION" OF AN ACCREDITATION BODY BY NIST.

A CERTIFICATION BODY OR REGISTRAR ACCREDITED BY A "RECOGNIZED" ACCREDITATION BODY MAY THEN BE ELIGIBLE TO BE NAMED BY THE U.S. GOVERNMENT AS A "NOTIFIED BODY" FOR A SPECIFIC EU DIRECTIVE, FOR EXAMPLE THE MACHINERY DIRECTIVE.

A MUTUAL RECOGNITION AGREEMENT MUST BE NEGOTIATED BETWEEN THE U.S. GOVERNMENT AND THE COMMISSION OF THE EU FOR EACH OF THE EU DIRECTIVES.

NVCASE RECOGNITION FOR FOREIGN REGULATIONS

- ANSI-RAB APPLICATION
  - -QUALITY SYSTEM REGISTRATION
- ANSI APPLICATION
  - -PRODUCT CERTIFICATION

THE NVCASE PROGRAM WAS ANNOUNCED IN THE SECOND QUARTER OF 1994 AND MAY BECOME OPERATIONAL YET THIS YEAR.

FOR THOSE CASES WHERE FOREIGN GOVERNMENT REGULATIONS REQUIRE IT:

-ANSI AND RAB HAVE APPLIED FOR "RECOGNITION" OF THEIR JOINT REGISTRAR ACCREDITATION PROGRAM, AND

-ANSI HAS APPLIED TO NIST FOR "RECOGNITION" OF ITS ACCREDITATION PROGRAM FOR PRODUCT CERTIFICATION.

- BACKGROUND
- PROGRAMS
- MUTUAL RECOGNITION STATUS
- INTERNATIONAL ACCREDITATION FORUM
- ISO ACTIVITY
- RAB AUTHORITY

IN THIS BRIEF TIME I'VE TRIED TO PROVIDE:

-BACKGROUND ON WHY RAB CAME INTO BEING AND WHAT ITS GOAL IS;

-A DESCRIPTION OF THE VARIOUS PROGRAMS OPERATED BY RAB, AND THE STATUS OF EACH;

-THE STATUS OF RAB MUTUAL RECOGNITION WITH OTHER ACCREDITATION AND CERTIFICATION BODIES;

-INFORMATION ON THE INTERNATIONAL ACCREDITATION FORUM - ITS MISSION AND ITS CURRENT PROJECTS;

-HOW RAB IS INVOLVED IN WHAT ISO IS DOING TO PROMOTE GLOBAL RECOGNITION OF QUALITY SYSTEM REGISTRATIONS;

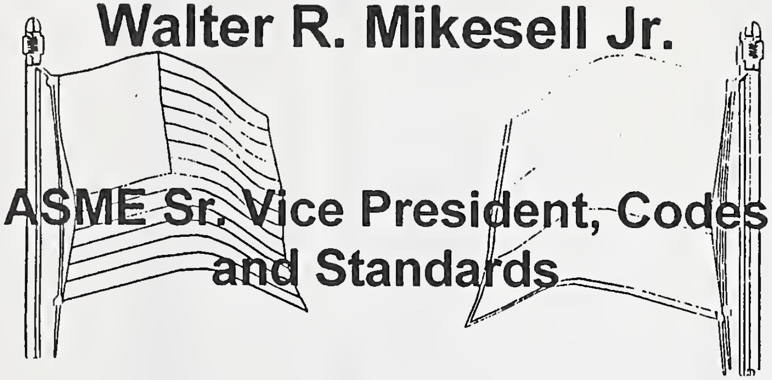
-AND FINALLY, RAB'S AUTHORITY TO ACT AS THE U.S. ACCREDITATION BODY FOR QUALITY SYSTEMS REGISTRARS, AND A FEW WORDS ABOUT THE NVCASE SYSTEM FOR USE WHEN FOREIGN GOVERNMENT REGULATIONS REQUIRE U.S. GOVERNMENT GUARANTEES.

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

ASME Codes and Standards: a Path to Global Business Development

Walter R. Mikesell Jr., P.E., Senior Vice President, Codes and Standards
American Society of Mechanical Engineers International

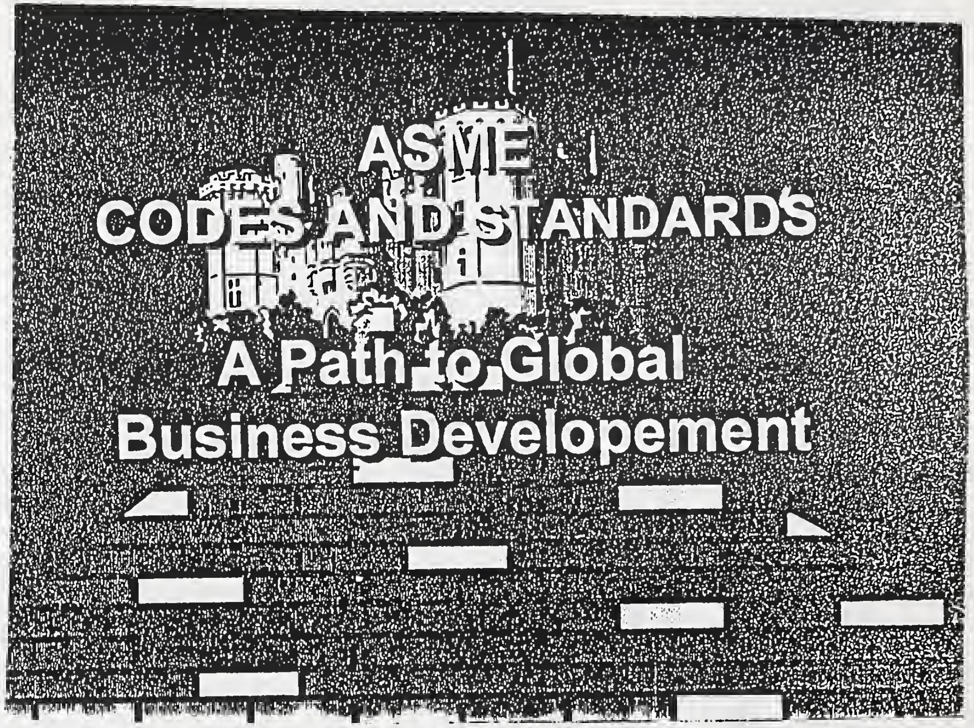
[Copies of 10 slides used follow]



Walter R. Mikesell Jr.

ASME Sr. Vice President, Codes and Standards

President
Mikesell & Boyak Associates

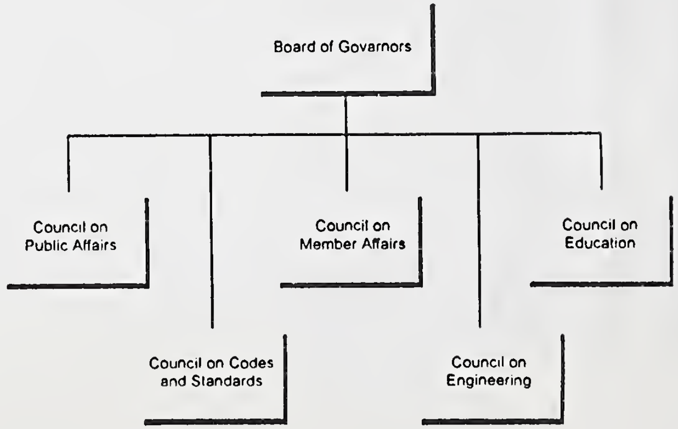


ASME
CODES AND STANDARDS
A Path to Global Business Developement

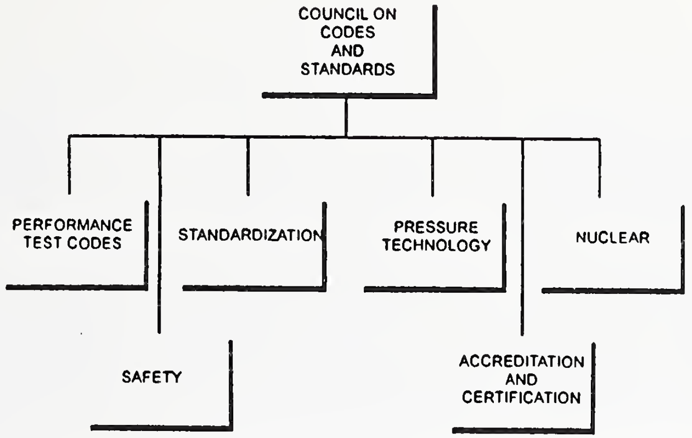
ASME

- Founded in 1880
- Educational, scientific and charitable organization
- 124,602 individual members; no corporate membership
- Codes and Standards Directorate

  122 Consensus Committees
  600 Codes and Standards


Board of Governors
Council on Public Affairs
Council on Codes and Standards
Council on Member Affairs
Council on Engineering
Council on Education

SUPERVISORY BOARDS


COUNCIL ON CODES AND STANDARDS

PERFORMANCE TEST CODES

STANDARDIZATION

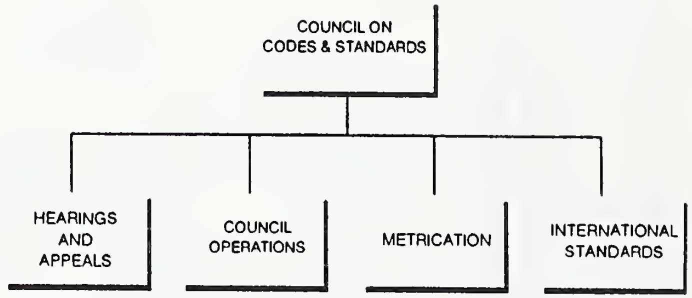
PRESSURE TECHNOLOGY

NUCLEAR

SAFETY

ACCREDITATION AND CERTIFICATION

ADVISORY BOARDS


COUNCIL ON CODES & STANDARDS

HEARINGS AND APPEALS

COUNCIL OPERATIONS

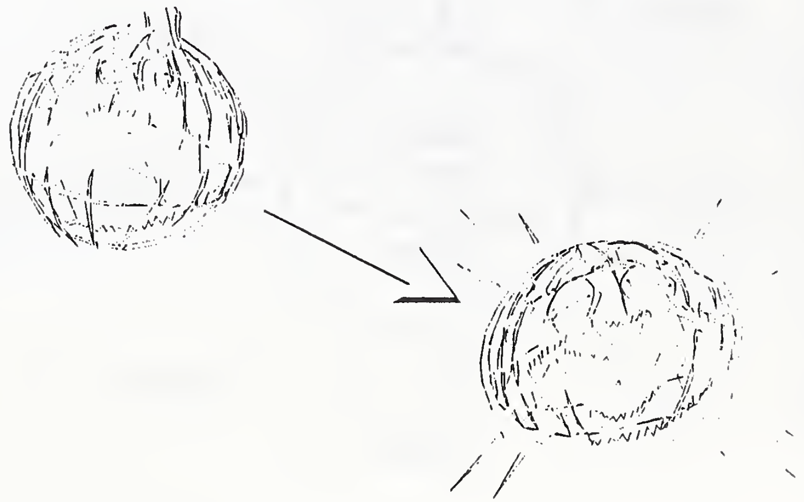
METRICATION

INTERNATIONAL STANDARDS

CODES AND STANDARDS

- approx. 600 published codes and standards
- over 3700 committee members
- over 122 main committees
- each committee meets 0-5x a year
- globalization

1972 Consent Decree



manufacturers of **P**ressure equipment

manufactur**E**rs of materials

federal, state and l**O**cal jurisdictions and regulations

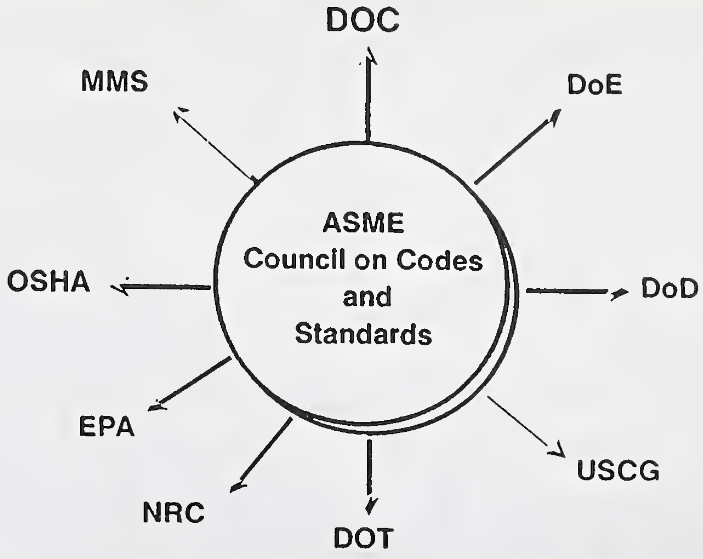
authorized ins**P**ection agencies

genera**L** interest

own**E**r user

P+E+O+P+L+E = Consensus

INTEREST CATEGORIES



ASME AND THE FEDERAL GOVERNMENT

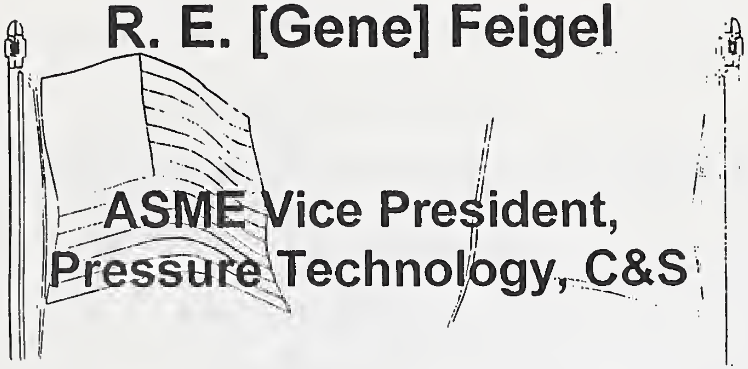
Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Board on Pressure Technology Codes and Standards

Dr. Richard E. [Gene] Feigel
Vice President, Pressure Technology, Codes and Standards
American Society of Mechanical Engineers International

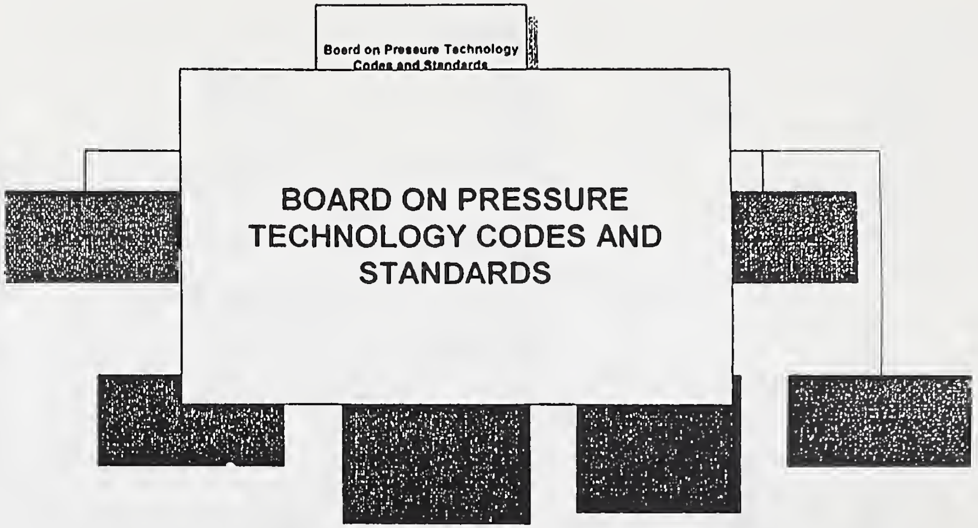
[Copies of 13 slides used follow]

R. E. [Gene] Feigel

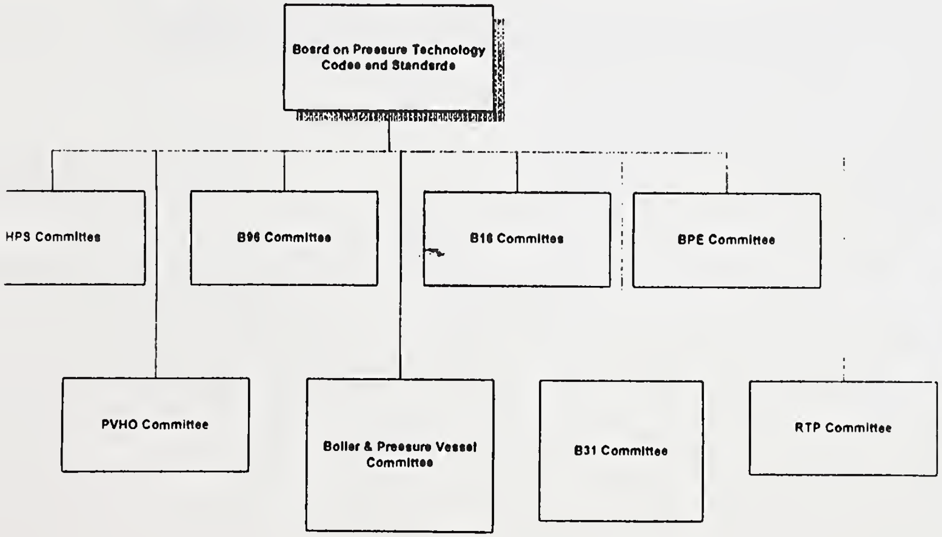


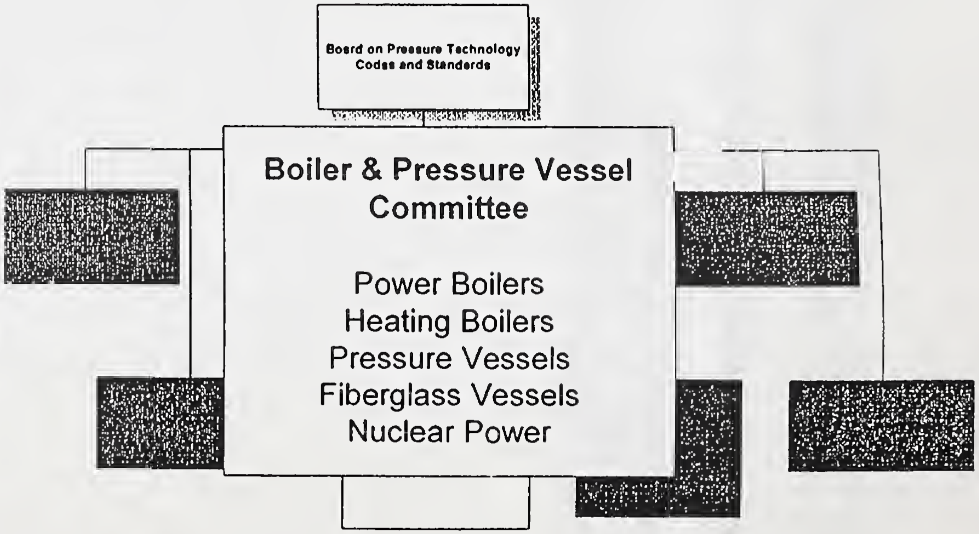
ASME Vice President, Pressure Technology, C&S

Asst. Vice President
Hartford Steam Boiler Inspection
and Insurance Agency



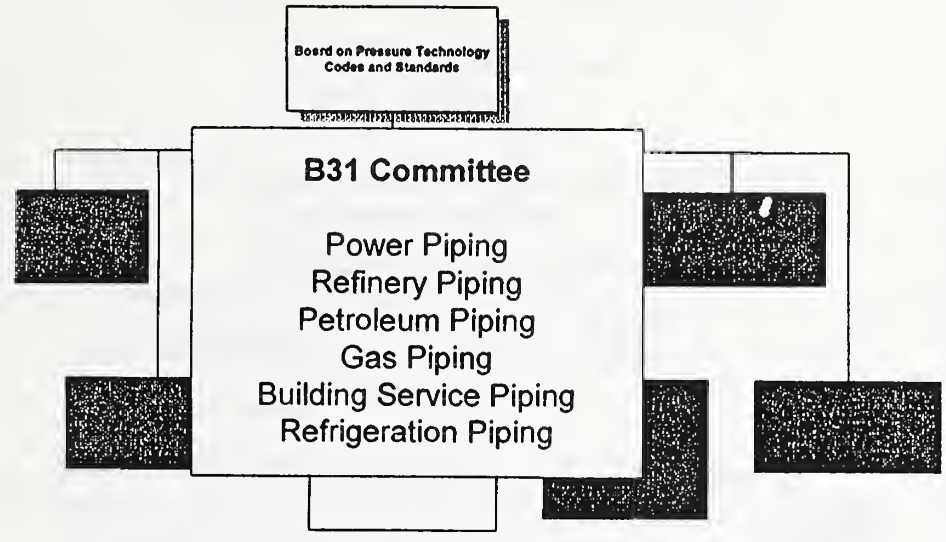
BOARD ON PRESSURE TECHNOLOGY CODES AND STANDARDS





Boiler & Pressure Vessel Committee

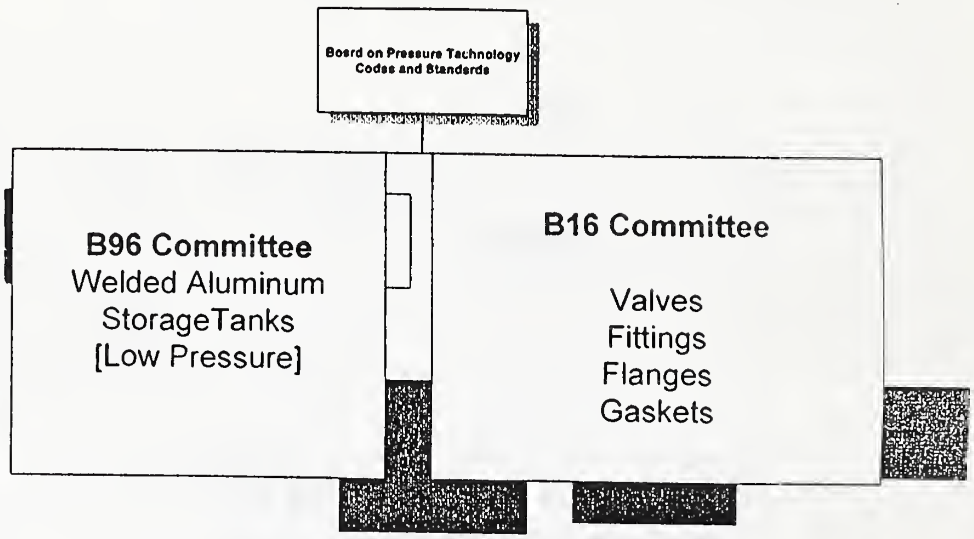
Power Boilers
Heating Boilers
Pressure Vessels
Fiberglass Vessels
Nuclear Power



Board on Pressure Technology Codes and Standards

B31 Committee

Power Piping
Refinery Piping
Petroleum Piping
Gas Piping
Building Service Piping
Refrigeration Piping

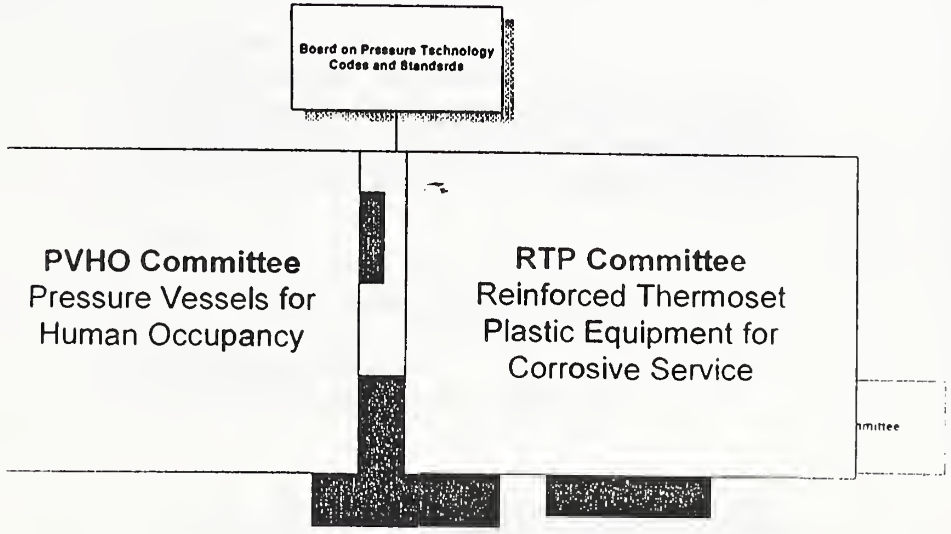


Board on Pressure Technology Codes and Standards

B96 Committee
Welded Aluminum
StorageTanks
[Low Pressure]

B16 Committee

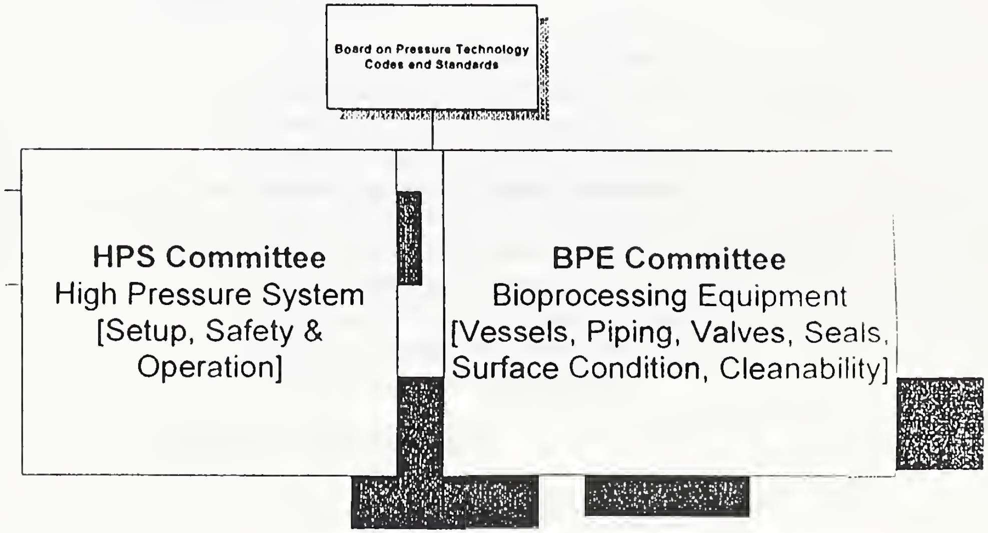
Valves
Fittings
Flanges
Gaskets



Board on Pressure Technology Codes and Standards

PVHO Committee
Pressure Vessels for
Human Occupancy

RTP Committee
Reinforced Thermoset
Plastic Equipment for
Corrosive Service



Board on Pressure Technology Codes and Standards

HPS Committee
High Pressure System
[Setup, Safety &
Operation]

BPE Committee
Bioprocessing Equipment
[Vessels, Piping, Valves, Seals,
Surface Condition, Cleanability]

Pressure Technology Sectoral Technical Advisory Committee [PT-STAC]

- Formed as a result of a January 1991 NIST/ASME Workshop
- First meeting held September 25, 1991
- Charter

  To assist the U.S. Government in the development of positions for use as a basis for negotiations with the European Union, and other regional technical and trade entities, on matters relating to pressure equipment.

PT-STAC Membership

Organizational Members

- DOC/ITA Office of EC Affairs
- Pressure Vessel Manufacturers Assoc.
- American Boiler Manufacturers Assoc.
- ASME Board on Accreditation and Certification
- ASME Boiler and Pressure Vessel Committee
- American Insurance Association
- National Board of B&PV Inspectors
- ASME Pressure Piping Committee
- American Petroleum Institute
- ASME B16 Standardization of Valves, Flanges, Fittings, and Gaskets Committee

Members-at-Large

ADOPTION OF BOILER AND PRESSURE VESSEL CODE

US State and Local Laws

Canadian Provincial Laws

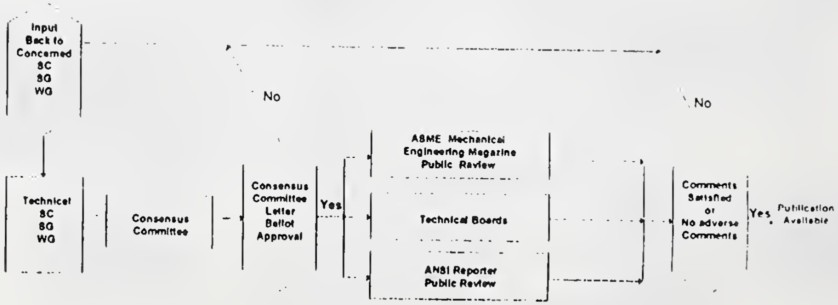
US Code of Federal Regulations

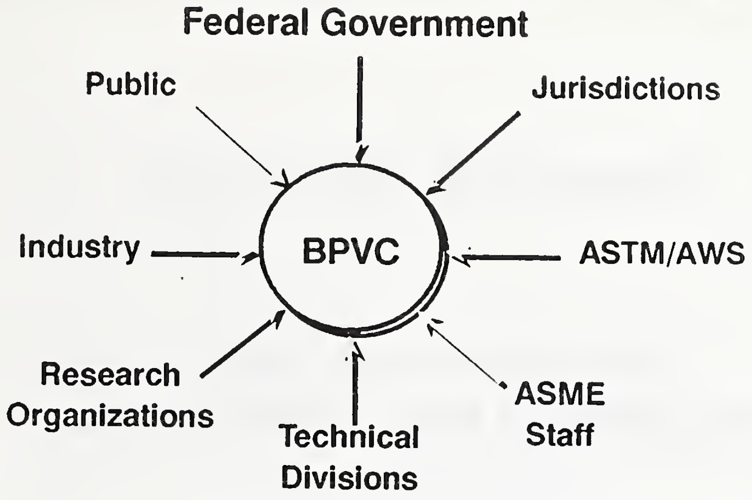
U.S. Coast Guard
US DoT Research and Special Programs Administration
Nuclear Regulatory Commission
Occupational Safety and Health Administration

Also adopted by:

U.S. Department of Defense
U.S. General Services Administration
U.S. Department of Energy
U.S. National Aeronautics and Space Administration

A TYPICAL PATH FOR STANDARDS APPROVAL


Input Back to Concerned SC SG WG
No
No
Technical SC SG WG
Consensus Committee
Consensus Committee Letter Ballot Approval
Yes
ASME Mechanical Engineering Magazine Public Review
Technical Boards
ANSI Reporter Public Review
Comments Satisfied or No adverse Comments
Yes
Publication Available



SOURCES OF INPUT TO THE BPVC

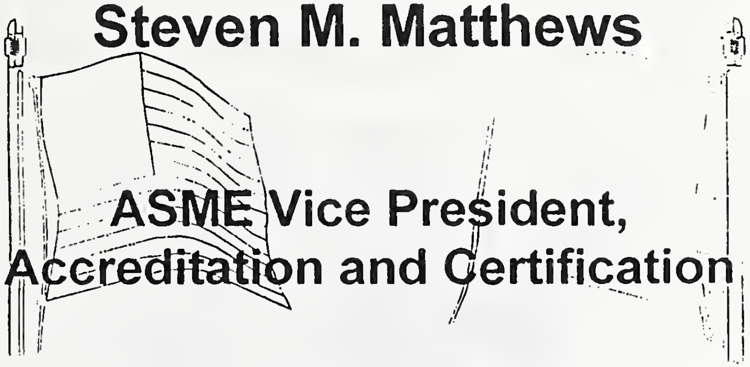
Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

ASME Accreditation and Certification Programs

Steven M. Matthews
Vice President, Accreditation and Certification
American Society of Mechanical Engineers International

[Copies of 17 slides used follow]

Steven M. Matthews



ASME Vice President, Accreditation and Certification

Quality Assurance Engineer
US Nuclear Regulatory Commission

AND CERTIFICATION PROGRAMS

- Boiler and Pressure Vessels
- Nuclear Components
- Nuclear Materials
- Pressure Relief Device Laboratories
- Authorized Inspection Agencies
- Safety and Pollution Prevention Equipment (Offshore)
- Window Fabricators for Pressure Vessels for Human Occupancy
- Fasteners
- Reinforced Thermoset Plastic Vessels
- ISO 9000 Registration
- Qualification of Resource Recovery Facility Operators
- Qualification of Medical Waste Incinerator Operators
- Qualification of Hazardous Waste Incinerator Operators
- Qualification of High Capacity Fossil Fuel Fired Plant Operators [In Development]
- Y14 Certification of Geometric Dimensioning and Tolerancing Professionals [In Development]

ASME ACCREDITATION MARKS

- 22 Marks

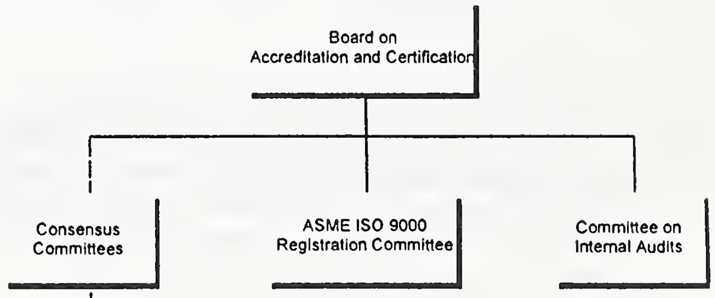
U S PP A U2 UM

H HLW M V UV HV

E RP N NA NPT NV

[illegible] RTP QEI OCS

- Accredited Manufacturers in 54 Countries about the World



Board on Accreditation and Certification

Consensus Committees

ASME ISO 9000 Registration Committee

Committee on Internal Audits

Subcommittees on Accreditation Including:

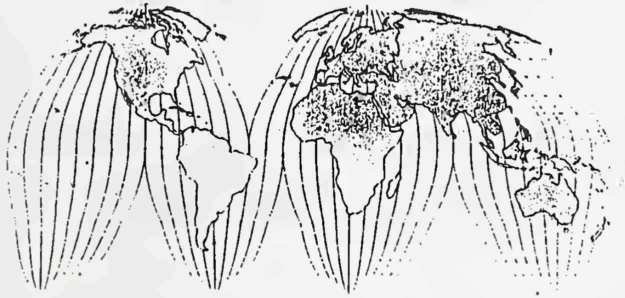
- BPV Subcommittee on Boiler & Pressure Vessel
- BPV Subcommittee on Nuclear Accreditation

ASME Accreditation means that the manufacturer's or supplier's quality control system and quality assurance program have been reviewed and accepted by ASME as meeting the requirements of the relevant ASME Standard. *[excerpt Council on Codes and Standards CSP-20(b)]*

ASME accredits a manufacturer's or supplier's quality system; the manufacturer or supplier certifies their product.

ASME Certification covers individuals and serves to recognize an individual as having met the specific guidlines in criteria contained in an ASME standards develop in accordance with ASME Codes and Standards procedures.

ASME 9000

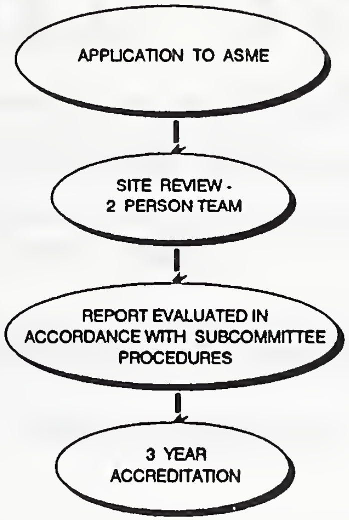


The ASME ISO 9000 Registration Program

ASME 9000 Registration means that the supplier's quality system has been reviewed and accepted by ASME as meeting the requirements of the relevant ISO 9000 Standard.

ASME registers a supplier's quality system; there is no product certification under this program.

Boiler and Pressure Vessel Accreditation



APPLICATION TO ASME

SITE REVIEW - 2 PERSON TEAM

REPORT EVALUATED IN ACCORDANCE WITH SUBCOMMITTEE PROCEDURES

3 YEAR ACCREDITATION

DATA REPORT FORM COMPLETION

- Manufacturer certifies product
- Authorized inspector signs off data report form

PRODUCT MARKING

- Manufacturer affixes mark
- Mark remains property of ASME
- Code scope ends upon marking

AUTHORIZED INSPECTIONS DURING MANUFACTURING

- Authorized inspectors
  - NBBI provides uniform examinations and may commission inspectors
  - Certified by State or Province
- Authorized Inspection Agencies
- Authorized Inspector establishes hold points during manufacturing
- Witnessing of final hydrostatic test

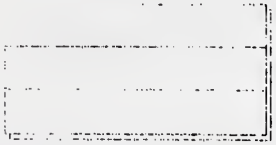
ASME 9000

Registration of suppliers of mechanical equipment and related materials, items, and services in the following industrial sectors:

- Primary metal industries (3300)
- Fabricated metal products (3400)
- Industrial machinery and equipment (3500)
- Engineering services (8700)

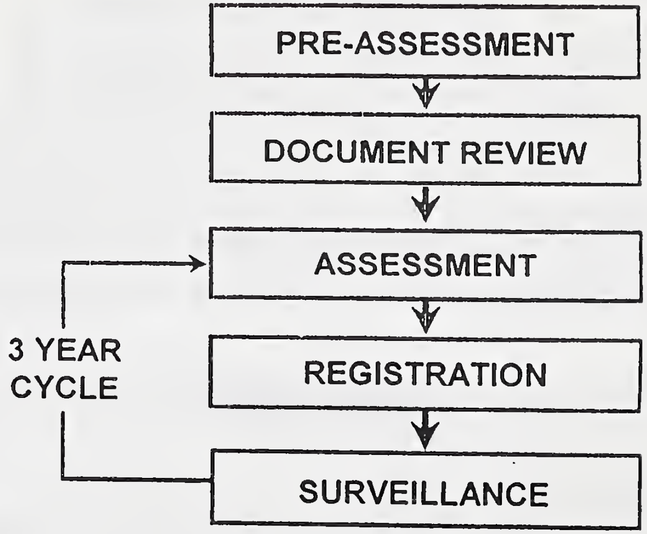
ASME 9000 Accrediting Bodies

Registrar Accreditation Board
(RAB)



Raad voor de Certificatie
(RvC)

REGISTRATION PROCESS



PRE-ASSESSMENT

DOCUMENT REVIEW

ASSESSMENT

REGISTRATION

SURVEILLANCE

3 YEAR CYCLE

ASME COMBINED

ISO 9000 ASSESSMENT

AND

BPVC SECTION VIII-1 REVIEW

ASME COMBINED ISO 9001/BPVC VIII-1

GENERAL

- ISO 9001 Registration signifies system compliance with ISO 9001
- ASME U Stamp signifies product compliance with ASME Boiler and Pressure Vessel Code, Section VIII Division 1
- ISO 9001 quality requirements are complementary (not alternative) to BPVC requirements
- ISO 9001 quality requirements may be applicable to products that are not ASME Code - e.g. commercial, military

INTEGRATED ASSESSMENTS

Advantages to supplier:

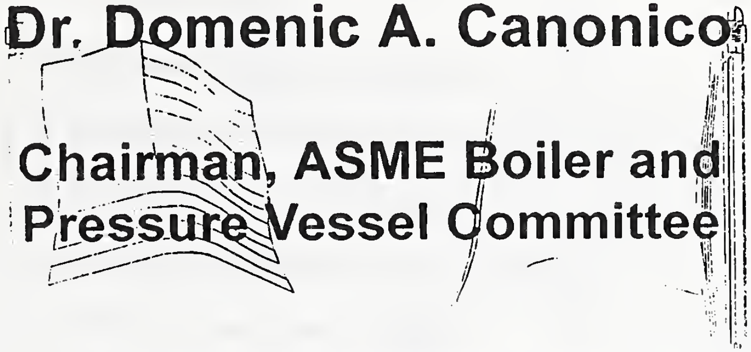
- Reduction in number and total length of audit activities
- Reduction in total accreditation/ registration fees
- Same Lead Auditor-consistent interpretation of QA requirements

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Boiler and Pressure Vessel Code

Dr. Domenic A. Canonico
Chair, Boiler and Pressure Vessel Committee
American Society of Mechanical Engineers International

[Copies of 16 slides used follow]



Dr. Domenic A. Canonico

Chairman, ASME Boiler and Pressure Vessel Committee

Vice President Technology
ABB CE Power Products Manufacturing

Boiler and Pressure Vessel Code

Rules for:

- New Construction of Boilers, Pressure Vessels, and Nuclear Power Plant Components
- Safety governing materials, design, fabrication, inspection, and testing
- Accreditation of Manufacturers

Boiler & Pressure Vessel Committee

- Main Committee *(Consensus Committee)*
- Executive Committee
- Conference Committee
- Marine Conference Group

Boiler & Pressure Vessel Committee

Service Subcommittees

- Materials (SC-II)
- Nondestructive Examination (SC-V)
- Welding (SC-IX)
- Design (SC-D)
- Safety Valve Requirements (SC-SVR)
- Boiler and Pressure Vessel Accreditation (SC-BPVA)
- Nuclear Accreditation (SC-NA)

Boiler & Pressure Vessel Committee

Book Subcommittees

- Power Boilers (SC-I)
- Nuclear Power (SC-III)
- Heating Boilers (SC-IV)
- Pressure Vessels (SC-VIII)
- Fiber-Reinforced Plastic Pressure Vessels (SC-X)
- Nuclear Inservice Inspection (SC-XI)

CONSENSUS COMMITTEE

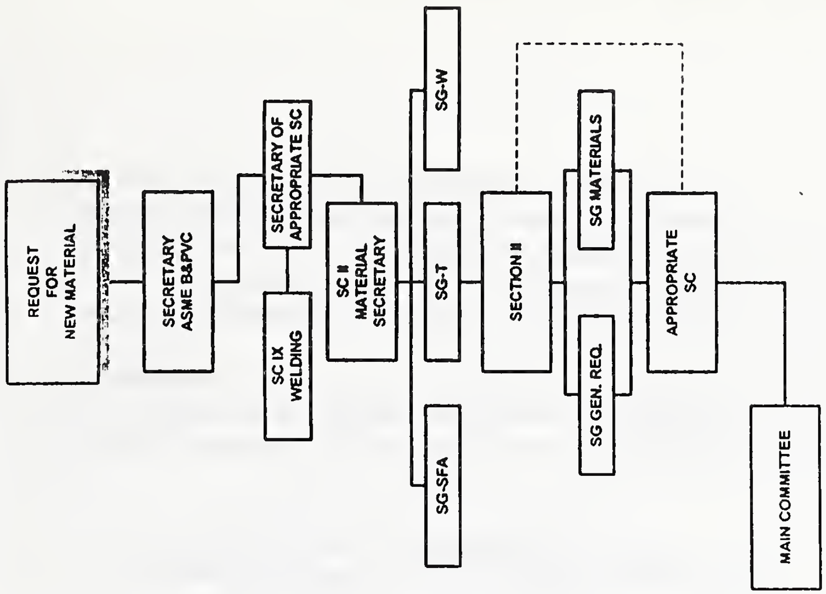
BALANCE OF INTEREST

PROCESS ELEMENTS

- **Product Related Technical Requirements**
- **Quality System Requirements**
- **On-Site Assessment by ASME Team**
- **Judgment on Issuance of Certificates and Marks**
- **Authorized Inspection During Manufacturing**
- **Data Report Form Completion**
- **Product Marking**
- **Due Process**

Due Process Includes:

- Hearing by Subcommittee
- Appeal to Consensus Committee
- Appeal to appropriate Supervisory Board
- Appeal to Board on Hearing and Appeals



NUMEROUS PEOPLE ARE INVOLVED IN THE CONSIDERATION AND ACCEPTANCE OF NEW MATERIAL FOR THE ASME B&PVC

NUMEROUS CHANGES HAVE BEEN MADE TO SECTION II THAT IMPACT B&PVC FABRICATION

- Appendix A & B To Parts A & B (1990)

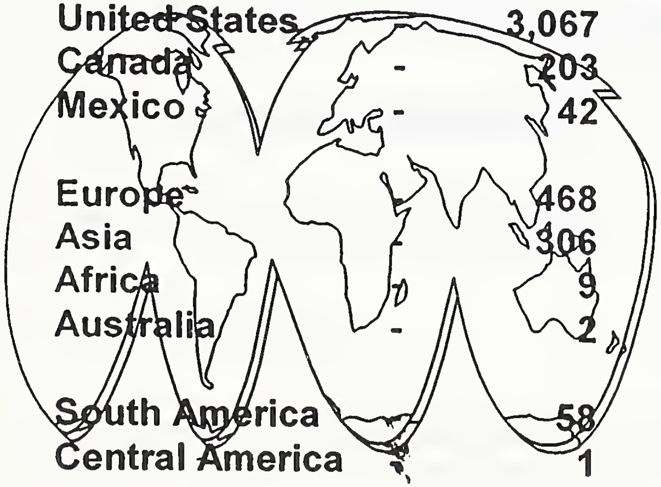
  Lists latest ASME adopted ASTM specification and previously accepted specifications and identifies the specification permitted in individual books.

- ASME Specification will be published only with each new edition. Changes that have a major impact will result in the reissue of a specificaiton (1991).

- Section II Paret D gathers all materials and their allowable stress value in single tables (1992).

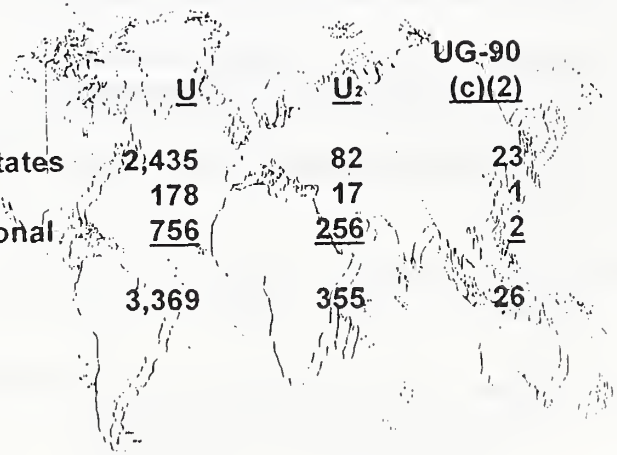
ASME Boiler & Pressure Vessel Certificate Holders

as of January, 1995



United States	3,067
Canada	203
Mexico	42
Europe	468
Asia	306
Africa	9
Australia	2
South America	58
Central America	1

Pressure Vessel Certificate Holders



	U	U_2	UG-90 (c)(2)	UM
United States	2,435	82	23	224
Canada	178	17	1	34
International	756	256	2	36
	3,369	355	26	294

As of 03/07/95

OBSTACLES TO GLOBALIZATION OF THE ASME B&PVC

- **Language**
- **Units of Measurement**
- **Allowable Stresses**
- **Definition of Jurisdictions**

THERE IS A PHILOSOPHICAL DIFFERENCE BETWEEN THE ASME B&PVC AND EUROPEAN STANDARDS

- **Currently the ASME B&PVC only accepts material for which an ASTM specification exists**
- **Basis for setting allowable stresses**
  - **ASME B&PVC - 1/2.73 UTS**
  - **European Codes - 2/3 Y.S.; 1/2.4 UTS**
- **European codes are based on metric system**

MUTUAL RECIPROCITY MUST BE THE STALWART OF GLOBALIZATION OF CODES AND STANDARDS

- **Pressure Technology Sectoral Technical Advisory Committee Has Taken a Stand on Mutual recognition**

  Mutual recognition agreements cannot and should not change the laws of either community. Any potential mutual recognition agreement should ensure manufacturers of both communities equal access to both conformity assessment systems.

THE ASME B&PVC HAS ACTIVITIES UNDERWAY TO GLOBALIZE

- 1998/2001 Edition will be **only** Hard Metric
- Assessing methods to accomodate non-ASTM specifications for ASME code construction
- Redefining **"JURISDICTIONS"**

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

IEC System for Conformity Testing to Standards for Safety of Electrical Equipment IEC/IECEE

Frank K. Kitzantides
Vice President Engineering
National Electrical Manufacturers Association

[Copies of 17 slides used follow]

IEC SYSTEM
FOR
CONFORMITY TESTING
TO
STANDARDS FOR
SAFETY OF
ELECTRICAL EQUIPMENT
IEC/IECEE

WHAT IS THE IECEE?

- The IECEE is the IEC System for Conformity Testing to Standards for Safety of Electrical Equipment

- The fundamental objective of the IECEE is the reciprocal recognition of test results (according to IEC standards) among all participating countries, to simplify certification at national levels

- The IECEE Certification Body, or " CB " Scheme, has participation from 38 national committees and presently has 31 fully participating member countries.

  - The CB Scheme is the only international certification scheme of its type for safety of electrical equipment used in homes, offices, workshops and similar locations

- Fundamental principle: product from one country is tested to a participating IEC standard, generally in the country of origin by a National Certification Body (NCB) who issues a "CB Test Certificate" which is accompanied by a "CB Test Report"

  - This CB Test Certificate & Test Report are presented to another NCB in a destination country where the previous testing is recognized and the process of obtaining the national certification (mark) is expedited

- This eliminates the need for complete re-testing resulting in lower testing costs and much faster time – to – market

  - Generally speaking, it is now possible to receive national certification in multiple weeks vs. multiple months before!

MANAGEMENT STRUCTURE OF THE IECEE

- The IECEE is managed by a Management Committee (MC) reporting to the IEC Council

  - MC membership consists of delegations from each member body in the IECEE System

- The IECEE / CB Scheme is managed by the Committee of Certification Bodies (CCB) reporting to the MC

  - The CCB administers and promotes the CB Scheme

  - Membership of the CCB consists of one delegate from each National Certification Body who is not associated with the manufacture of other trades of electrical equipment

- The Committee of Testing Laboratories (CTL) reports to the MC

  - CTL is a forum where testing laboratory representatives discuss questions of practice releated to technical specifications and test methods in the IEC standards accepted for use in the system

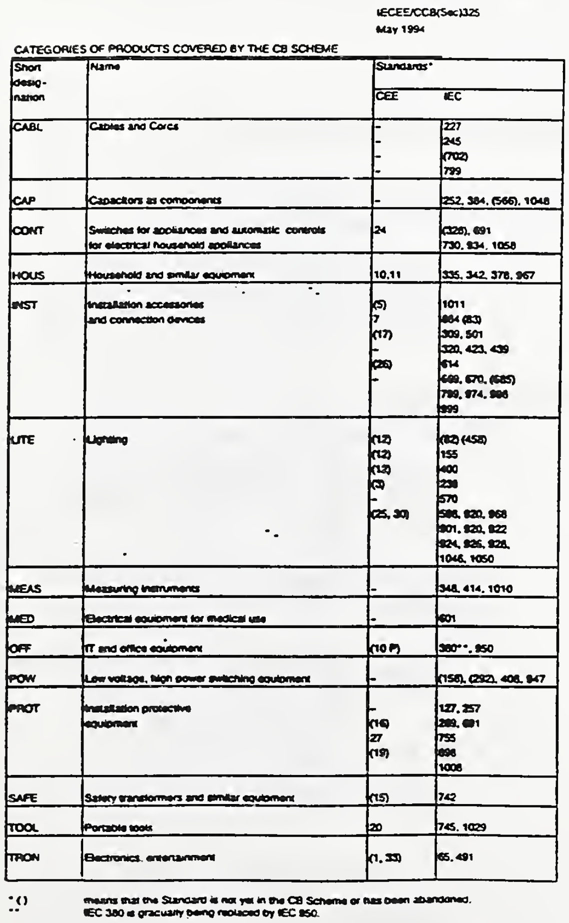
  - Membership of CTL consists of experts from testing laboratories appointed by the organizations of the IECEE system

MARKET ACCEPTANCE OF THE CB SCHEME IS EXPANDING DRAMATICALLY

- The CB Scheme has grown dramatically over the past 5 years, with growth driven by market acceptance—
  - In 1993, 3,501 CB Test Certificates were issued for a nearly five-fold increase over 1989 (766) and a 55% increase over 1992
  - In 1993, 2,226 CB Test Certificates were recognized, a 66% increase over 1992
    - For the period 1989–1993, 89% of CB Test Certificates issued were also recognized, confirming the growing market acceptance of the CB Scheme

SCOPE OF THE CB SCHEME EXPANDING IN RESPONSE TO MARKET DEMAND

- In response to accelerating market demand, plans for two new IECEE Schemes were announced at the 1994 IECEE Annual Meetings
  - The rules for a new " Ex " Scheme which involves certification to standards for electrical equipment in explosive atmospheres were approved and are expected to become operational in 1995
  - The draft rules for a new CB – Full Certification Scheme, or " CB – FCS " were agreed to with final voting expected in 1994
    - The CB – FCS will expand the CB Scheme from mutual recognition of test results to mutual recognition of national certifications (test marks)
- In addition, as a result of increased market demand, it was agreed at the 1994 IECEE Annual meetings to incorporate the following provisions within the CB Scheme:
  - Supervised Manufacturer's Testing (SMT), and
  - Testing at Manufacturer's Premises (TMP)



IECEE/CCB(Sec)325
May 1994

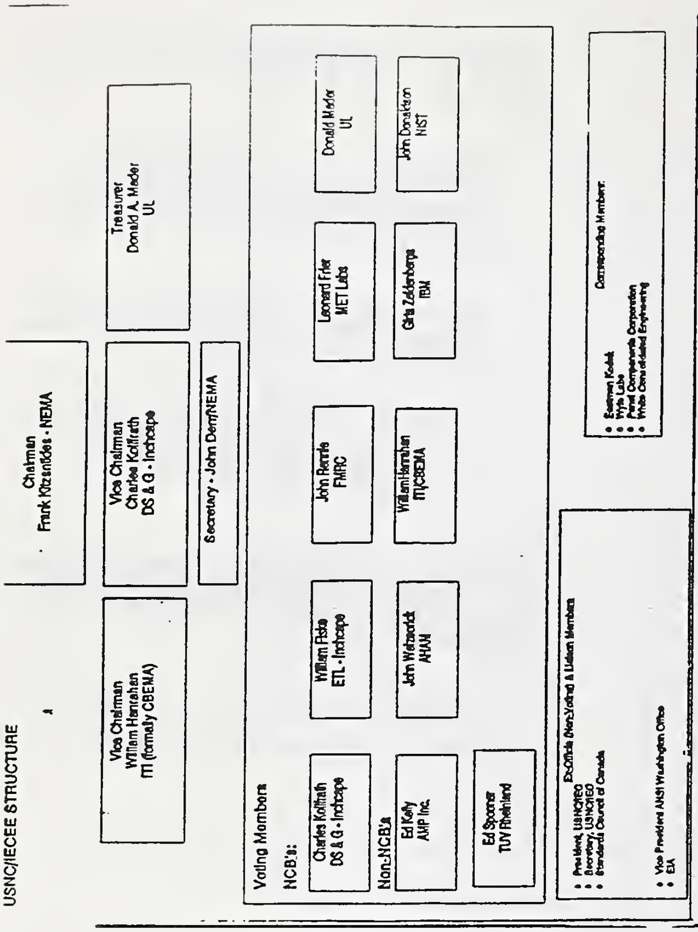
CATEGORIES OF PRODUCTS COVERED BY THE CB SCHEME

Short desig-nation	Name	Standards*	
		CEE	IEC
CABL	Cables and Cords	– – – –	227 245 (702) 799
CAP	Capacitors as components	–	252, 384, (566), 1048
CONT	Switches for appliances and automatic controls for electrical household appliances	24	(328), 691 730, 934, 1058
HOUS	Household and similar equipment	10,11	335, 342, 378, 967
INST	Installation accessories and connection devices	(5) 7 (17) – (26) –	1011 884 (83) 309, 501 320, 423, 439 614 669, 670, (685) 799, 874, 998 999
LITE	Lighting	(12) (12) (12) (3) – (25, 30)	(82) (458) 155 400 238 570 598, 920, 968 901, 920, 922 924, 926, 928, 1046, 1050
MEAS	Measuring instruments	–	348, 414, 1010
MED	Electrical equipment for medical use	–	601
OFF	IT and office equipment	(10 P)	380**, 950
POW	Low voltage, high power switching equipment	–	(158), (292), 408, 947
PROT	Installation protective equipment	– (16) 27 (19)	127, 257 269, 691 755 898 1008
SAFE	Safety transformers and similar equipment	(15)	742
TOOL	Portable tools	20	745, 1029
TRON	Electronics, entertainment	(1, 33)	65, 491

*( ) means that the Standard is not yet in the CB Scheme or has been abandoned.
** IEC 380 is gradually being replaced by IEC 950.

- U.S. participates in 3 of 14 product categories (participation tripled in 1994):
  - MEAS (Measuring Instruments)
  - MED (Electrical Equipment for Medical Use)
  - OFF (IT and Office Equipment)
- U.S. participation expected to continue to increase quickly as the market pressures intensify to harmonize U.S. national electrotechnical standards with IEC standards

USNC/IECEE STRUCTURE



- There are five NCB's in the U.S. (participation varies):

  - Dash, Straus & Goodhue
    BOXBOROUGH, MASSACHUSETTS

  - ETL Testing Laboratories
    CORTLAND, NEW YORK

  - Factory Mutual Research Corporation
    NORWOOD, MASSACHUSETTS

  - MET Laboratories
    BALTIMORE, MARYLAND

  - Underwriters Laboratories
    NORTHBROOK, ILLINOIS

    (additional UL CB Testing Laboratories located in):

    - MELVILLE, NEW YORK
    - RESEARCH TRIANGLE PARK, NORTH CAROLINA
    - SANTA CLARA, CALIFORNIA

THE OSHA NRTL PROGRAM & THE IECEE CB SCHEME

- A Federal Register notice of March 9, 1995 announced OSHA's clarification of the types of programs and procedures that Nationally Recognized Testing Laboratories (NRTL's) may engage in

- Item 8 of this notice references acceptance of product evaluations from organizations that function as part of the IECEE CB Scheme. Criteria include:

  - NRTL shall retain control of all aspects of the product certification;

  - NRTL shall physically evaluate each product;

  - NRTL shall review each test report / test certificate to ensure that the correct nationally recognized standards have been used to test the product;

  - NRTL shall establish records to ensure that the organizations furnishing test and evaluation reports continue to be competent and that the organizations have correctly applied the U.S. deviations, as appropriate;

  - NRTL shall determine that the components used in the product are tested to a standard comparable to the appropriate nationally recognized standard;

  - NRTL shall determine that components used in the product have been certified through an appropriate regulatory authority's scheme & that such a scheme includes routine evaluation of the manufacturer's process.

SUMMARY OF IECEE RUSSIAN FEDERATION PARTICIPATION (3/95)

NCB: Gosstandard of Russia
GU ITEP – Moscow

- Present Limited Participation in Category HOUS (IEC 335); extension of recognition pending for categories HOUS, TOOL, TRON, INST and CABL

CBTL's: GIC BENP
(State Testing Center of Household Electric Heating Appliances) – Moscow

- Present Limited Participation in Category HOUS; Expanded participation pending for Category HOUS

TESTELECTRO (Center of Electrical Equipment Certification) – Moscow [5 departments at different sites]

- Participation pending for Product Categories HOUS, TOOL, TRON, INST, and CABL

IC CP NTC "SECAB" – Moscow

- Participation pending for Product Category CABL

IC AOZT "SERTIS" – St. Petersburg

- Participation pending for Product Category TRON

CB TEST CERTIFICATES ISSUED 1993

Categories of products	AT	AU	BE	CA	CH	CN	CZ	DE	DK	ES	FI	FR	GB	GR	HU	IE	IL	IN	IT	JP	KR	NL	NO	PL	RU	SE	SG	US	YU	Total
CAOL	0	0	0	0	0	4	7	0	3	0	1	0	0	0	0	0	0	0	0	0	0	21	17	0	0	2	0	0	6	60
CAP	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
CONT	1	0	0	0	1	0	1	7	1	0	3	6	3	0	0	0	0	0	6	0	0	9	3	0	0	5	0	0	0	46
HOUS	6	3	2	0	2	64	11	9	102	0	19	65	3	0	13	0	0	0	6	19	0	46	19	1	0	101	0	0	1	492
INST	7	0	0	0	1	0	6	30	17	0	1	4	0	0	6	0	0	0	9	0	0	110	33	1	0	66	0	0	0	290
LITE	1	0	0	0	0	0	9	13	0	0	7	0	0	0	2	0	0	0	0	0	0	0	1	0	0	36	0	0	0	67
MEAS	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	9
MED	0	2	0	9	0	0	0	9	0	0	1	0	0	0	1	0	0	0	7	0	0	0	2	0	0	0	0	0	0	31
OFF	5	2	0	52	3	0	3	88	23	0	31	17	26	0	0	26	0	0	11	30	4	12	210	0	0	156	0	122	0	820
POW	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
PROT	2	0	0	0	0	6	8	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	36
SAFE	0	0	0	0	1	0	3	1	4	0	2	0	0	0	0	0	0	0	3	0	0	1	4	6	0	61	0	0	0	86
TOOL	0	0	0	0	7	6	4	0	2	0	5	0	0	0	0	0	0	0	0	0	0	26	2	0	0	0	0	0	0	52
TRON	0	0	4	0	17	11	0	144	21	0	10	0	8	0	19	0	0	0	12	662	0	1	42	4	0	546	0	0	0	1501
TOTAL	22	7	6	61	32	91	48	311	173	0	86	93	40	0	40	26	0	0	58	711	4	236	333	12	0	985	0	122	6	3501

11

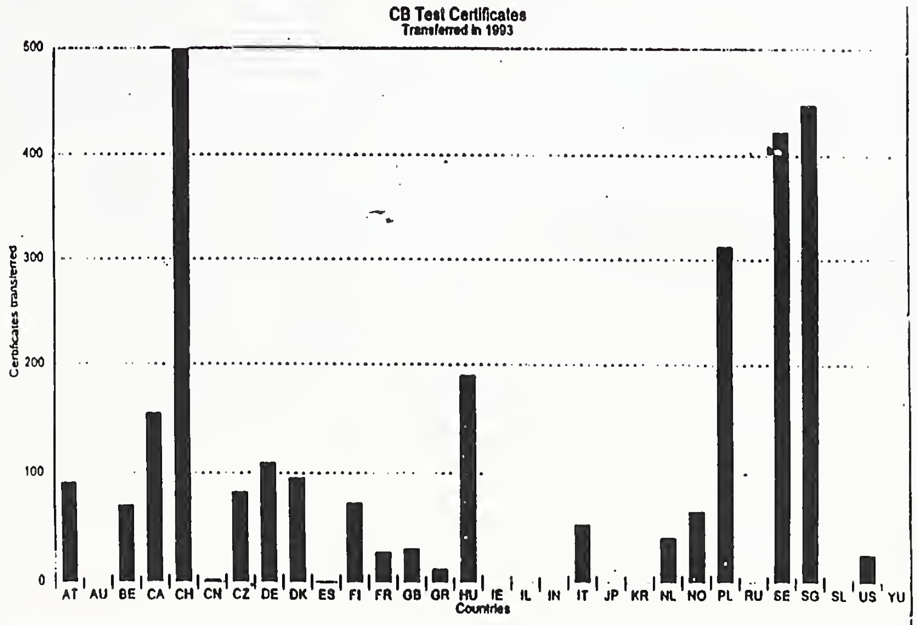
IECEE/CCB/Sec/283 rev
September 1994

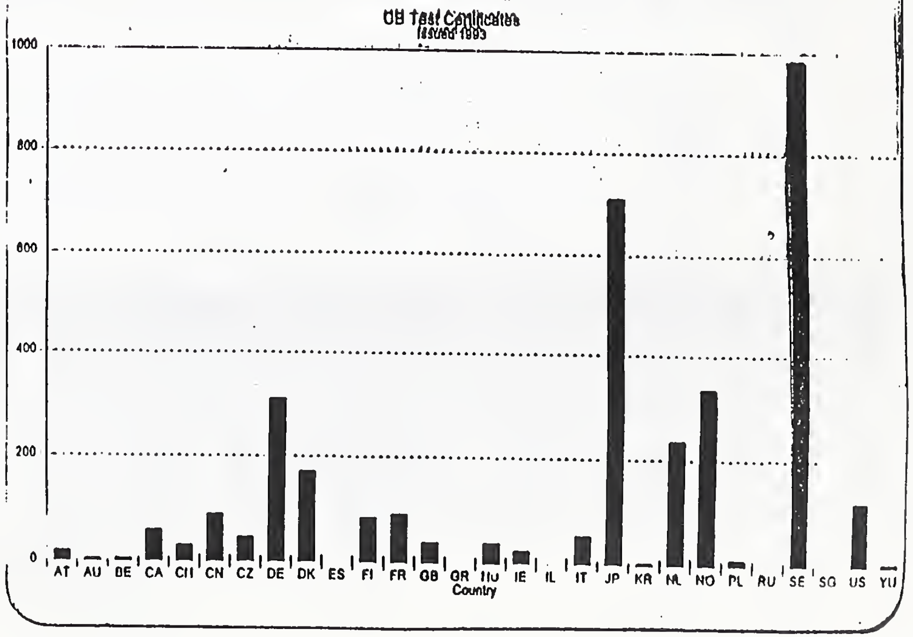
ISSUING AND RECOGNIZING NATIONAL CERTIFICATION BODIES AND LABORATORY ACCEPTANCE – Review

1 means confirmation procedure according to the new Rules. 2 means full acceptance. – means "not recognized" or "does not operate"

Country	NCB	CABL	CAP	CON	HOUS	INST	LITE	MEAS	MED	OFF	POW	PROT	SAFE	TOOL	TRON ****
AT	ÖVE	2	2	2	2	2	2	2	2	2	2	2	2	2	2
AU	SAA	–	–	2*	2	2	–	–	2	2	–	–	2	–	2
BE	CEBEC	2	2	2	2	2	2	2	–	2	2	2	2	2	2
CA	CSA	–	–	–	–	–*	–	2	2	2	–	–	–	–	–
CH	SEV	2	2	2	2	2	2	2	–	2	2	2	2	2	2
CN	CCEE	2	2	2	2	2	2	–	–	2	–	2*	–	2	2
CS	EZU	2	2	2	2	2	2	2	2	2	2	2	2	2	2
DE	VDE-PZI	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	TÜV Rheinland Cologne	–	–	2	2	2	2	2	2	2	–	–	2	2	2
DK	DEMKO	2	2	2	2	2	2	2	2	2	2	2	2	2	2
ES	AEE xx)	2	2	2	2	2	2	2	–	1	2	2	2	2	1
FI	FIMKO	2	2	2	2	2	2	2	2	2	2	2	2	2	2
FR	UTE	2	2	2	2	2	2	2	–	2	2	2	2	2	2
GB	BEAB	–	–	2**	2**	2*	–	2	–	2	–	–	–	2	2
	BSI	2**	2	2**	2**	2**	2	2	–	2	2	2	2	2	2
	ASTA	2**	–	–	–	2	–	–	–	–	2	2	2	–	–
GR	ELOT *****	–	–	–	1*	–	–	–	–	–	–	–	–	–	–
HU	MEEI	2	2	2	2	2	2	2	2	2	2	2	2	2	2
IE	NSAI	2	–	–	1	–	1	1	–	2	–	–	1	–	2
IL	SII	–	–	–	1	–	2	2	2	–	–	–	–	–	2
IN	BIS	2	2	2**	–	–	–	–	–	2**	2	2	–	–	2
IS	RER *****														
IT	IMQ	2	2	2	2	2	2	2	2	2	2	2	2	2	2
JP	IECEE-JP	2	–	–	2	–	2	2	–	2	–	–	–	–	2
KR	IECEE-KR	1*	–	–	2	2	–	–	–	2	–	–	–	–	2
NL	KEMA	2	2	2	2	2	2	2	2*	2	2	2	2	2	2
NO	NEMKO	2	2	2	2	2	2	2	2	2	2	2	2	2	2
PL	CBJW	2	2	2	2	2	2	2	–	2	2	2	2	2	2
RU	GU ITEP	–	–	–	1*	–	–	–	–	–	–	–	–	–	–
SE	SEMKO	2	2	2	2	2	2	2	2	2	2	2	2	2	2
SI	SIQ	–	2	2	2	2	2	2	–	2	–	–	2	2	2
SG	SISIR	2	–	–	2	–	–	–	–	–	–	2	2	–	2
US	UL	–	–	–	–	–	–	2	2	2	–	–	–	–	–
	MET	–	–	–	–	–	–	–	–	2	–	–	–	–	–
	ETL	–	–	–	–	–	–	–	–	2	–	–	–	–	–
	DSG	–	–	–	–	–	–	–	–	2	–	–	–	–	–
	FMRC	–	–	–	–	–	–	2	–	–	–	–	–	–	–
YU	PIS	2	–	2	2	2	–	–	–	1	–	–	–	2	2
		CABL	CAP	CON	HOUS	INST	LITE	MEAS	MED	OFF	POW	PROT	SAFE	TOOL	TRON

* Limited, see CB Bulletin no. 74B and 80A
** Delegated decisions according to IECEE 02, 2nd ed. sub-clause 3.3.8
**** For explanations of the abbreviations see page 12 (IECEE/CCB/Sec/225 rev.)
***** Recognizing NCB
xx) withdrawn their participation 1993-01-01





CB STATISTICS (Revised June 1994)

Compilation 3: CB Test Certificates transferred in 1993

category	presented to																														
	AT	AU	BE	CA	CH	CN	CZ	DE	DK	ES	FI	FR	GB	GR	HU	IE	IL	IN	IT	JP	KR	NL	NO	PL	RU	SE	SG	SL	US	YU	Total
CABL	14		14		13				4		4												2			8					57
CAP													1		1				2												4
CONT	8				13			2	82		11	8							6			7	2			6					118
HOUS	5		16		56			13	16		1	6	7		10				11			10	2	40		43	103				344
INST	88		39		106		2	46	1		3	17	4	10	2				24			25	12			52					103
LITE			2				7	8											1							6					24
MEAS																															0
MED					1			1															1			1					4
OFF	5			15	30		23	16	1		8		1	1	35				3				14	27		85			27		275
POW																															0
PHOT													1						1												8
SAFE	3				25			10	2				3	1	1									1		1					47
TOOL	1				6	2	8		1						2								2	10							33
TRON					249		43	12	20		46		14		129				7				31	235		239	344				1369
total	92	0	71	15	499	2	83	110	86	0	73	28	31	12	180	0	0	0	54	0	0	42	66	313	0	422	447	0	27	0	2673

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

American National Standards Institute's (ANSI) Conformity Assessment Activities

George T. Willingmyre, P.E.
Vice President
Washington Operations
American National Standards Institute

[Copies of 59 slides used follow]

ANSI's Conformity Assessment Activities

What is the goal of ANSI's Conformity Assessment Activities?

- U.S. and global customer acceptance of a supplier's declaration of conformity, a product certification, a quality system registration or a laboratory test result performed one time preferably at the site of choosing of the first party supplier

---

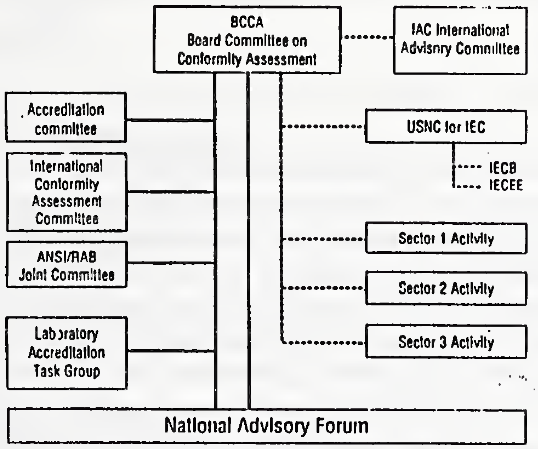
What are Elements of Meeting This Goal?

- National policy
- International standards
- International conformity assessment activities
- Education
- Acceptance of suppliers' declarations
- Nationally and Internationally accepted accreditation programs for:
  - Certification programs
  - Quality systems registrations
  - Laboratory test results

Who are the Major Constituents? What do They Want or Need?

- U.S. Industry (suppliers and purchasers)
- U.S. Government (regulatory)
- U.S. Government (procurement)
- U.S. Government (national policy and trade)
- State and local governments and code officials
- Certification organizations and quality system registrars
- Accreditation programs
- Laboratories

ANSI Conformity Assessment Activities Organization



BCCA Board Committee on Conformity Assessment

IAC International Advisnry Committee

Accreditation committee

International Conformity Assessment Committee

ANSI/RAB Joint Committee

Laboratory Accreditation Task Group

USNC for IEC

IECB

IECEE

Sector 1 Activity

Sector 2 Activity

Sector 3 Activity

National Advisory Forum

A key part of strategy

- Emphasize greatest possible use of manufacturers declaration
- Build a national accreditation system to assess the competence of third parties (certifiers, quality system registrars, laboratories) to promote national and international acceptance of the results of accredited organizations.

Operational Accreditation Programs

- ANSI accreditation (product certification)
- ANSI-RAB accreditation for registrars of quality systems
- Multiple laboratory accreditation programs

ANSI Accreditation Of Certification Programs: Purpose

- Provide national recognized internationally accepted, open, disciplined and credible accreditation.

Accreditation of Certification Programs: Goals

- Add value to certification programs, suppliers and ultimate users.
  - Assure certification program technical/administrative quality and competence
  - Provide high level of confidence that suppliers' products meet specified requirements
  - Enhance user confidence in, and national acceptance of certified products
  - Help certification programs meet conformity assessment elements of Agreement on Technical Barriers to Trade

---

Accreditation of Certification Programs: Goals

- Provide national accreditation process for use by government procurement and regulatory activities.
  - Promote wide availability of certified products at national level
  - Help local, state and federal government agencies meet their legislative mandates
  - Reduce need for overlapping local, state and federal accreditations
  - Promote use of internationally-based procedures consistent with Agreement on Technical Barriers to Trade

---

Accreditation of Certification Programs: Goals

- Achieve acceptance of certified products in world markets where certification is a factor, through:
  - A mechanism to measure the competence of certification programs to the same international criteria used by other national accreditation bodies
  - On-going international, regional and bilateral negotiation of mutual recognition agreements with peer accreditation bodies
  - Cooperation with and support for government to government negotiations of mutual recognition agreements - pursuit of NVCASE recognition by NIST

Criteria and Requirements Based on International Requirements.

- Governing documents:
  - ANSI policy, criteria, procedures (documents CA-1,2,3)
  - ANSI Z34.1-1993 third party certification programs for products, processes and services
  - ISO/IEC conformity assessment guides (referenced in Z34.1)

Accreditation Managed by ANSI Accreditation Committee

- Balanced memberships of industry, government and other interests
- Establishes accreditation criteria and requirements
- Recommends accreditation to ANSI Board of Directors
- Responsible to ANSI Board Committee for Conformity Assessment

---

Initial Accreditation Process

- Preliminary letter of application (to determine eligibility)
- Formal application with supporting documentation
- Public notice of receipt of application
- Evaluation and acceptance of documentation

Initial Accreditation Process (cont'd)

- Public notice of acceptance of documentation and availability of documents and review at ANSI
- On-site review of program operations (review team visits program headquarters, testing facilities and licensee sites)
- Accreditation committee recommendation for approval
- ANSI Board of Directors approval of accreditation
- Public notice of accreditation

Continuing Accreditation Process

- Annual review and inspection by audit team (more often if necessary)
  - Changes in program, personnel, facilities, etc.
  - Inspections at program headquarters, testing facilities and licensees site
- Accreditation committee reviews audit team report and decides on continuing accreditation

ANSI Accredited Programs

- ANSI has accredited certification programs in the following areas:
  - Windows and doors
  - Sealed insulating glass (2 programs)
  - Treated wood
  - Drinking water additives (2 programs)
  - Drinking water treatment units
  - Swimming pools, spas & components, circulation systems and components

---

ANSI Accredited Programs (cont'd)

- Plastic piping systems and components
- Class II biohazard cabinetry
- Wastewater treatment units
- Food service equipment
- Bottled water and packaged ice
- Special categories of equipment, products and services
- Gas appliances and accessories
- Electric appliances and accessories

ANSI Accredited Organizations (9/94)

- AAMA – American Architectural Manufacturers Association
- ALI – Associated Laboratories, Inc.
- IAS – International Approval Services
- NSF – NSF International
- SPIB – Southern Pine Inspection Bureau
- UL – Underwriters Laboratories, Inc.

Applications Received for Accreditation (9/94)

- ETL – ETL Testing Laboratories, Inc.
- C-K – C-K Associates
- FLIS – Florida Lumber Inspection Services, Inc.
- IAPMO – International Association of Plumbing and Mechanical Officials

Fees

Application kit:	$50.00
Pre-application site visit:	based on mutually agreed level of effort
Preliminary letter of application:	$0.00
Non-refundable application fee:	$2,000.00
Initial accreditation fees	based on level of effort required as provided in contract
Continuing annual accreditation fees:	Based partially on level of effort required for continuing audits and partially on 0.35% of gross program revenues

The American National Accreditation Program for Registrars of Quality Systems

- A joint program of the American National Standards Institute (ANSI), and
- The Registrar Accreditation Board (RAB)

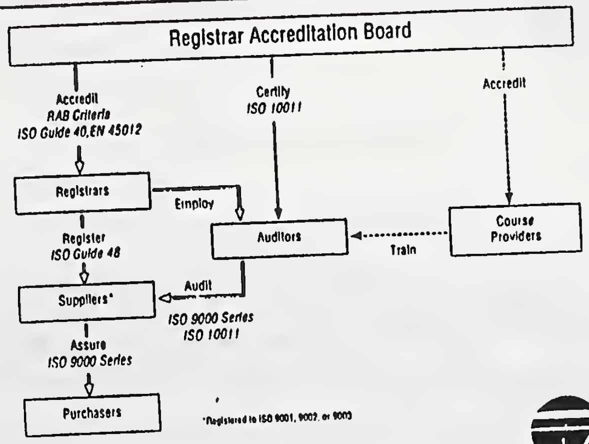
Purpose of the Program

- Provide assurance of the competence and reliability of third-party organizations which assess and register supplier quality systems to the requirements of recognized standards.

Operational Roles

- RAB
  - Administers program
- ANSI
  - Due process, Public Review
  - International and Government interface

Accreditation and Registration Process



Registrar Accreditation Board

Accredit
RAB Criteria
ISO Guide 40,EN 45012

Certify
ISO 10011

Accredit

Registrars

Employ

Auditors

Train

Course Providers

Register
ISO Guide 48

Suppliers*

Audit
ISO 9000 Series
ISO 10011

Assure
ISO 9000 Series

Purchasers

*Registered to ISO 9001, 9002, or 9003

ANSI-RAB Registrar Accreditation Program – Quality Systems Registrars (9/94)

- ABS Quality Evaluations, Inc.
- A.G.A. Quality, a service of International Approval Services
- American Quality Assessors
- American Society of Mechanical Engineers
- AT&T Quality Registrar
- Bellcore Quality Registration Services
- Bureau Veritas Quality International (NA) Inc.
- Davy Registrar Services (DRS)
- DLS Quality Technology Associates, Inc.

ANSI-RAB (9/94) (cont'd)

- Entela, Inc., Q.S.R.D.
- Global Registrars, Inc.
- Inchcape Testing Services
- Intertek Services Corporation
- Kema-Registered Quality, Inc.
- KPMG Quality Registrar
- Lloyd's Register Quality Assurance Ltd.
- National Quality Assurance, U.S.A.
- NSF International

ANSI-RAB (9/94) (cont'd)

- Quality Systems Registrars, Inc.
- Sgs International Certification Services, Inc.
- Steel Related Industries
- TRA certification, a division of tr Arnold & Associates, Inc.
- Tri-tech services, Inc. (see Global Registrars, Inc.)
- Underwriters Laboratories, Inc.

ANSI-RAB Registrar Accreditation Program Quality Systems Registrars – Applicants (9/94)

- AIB Registration Services
- Automotive Quality Systems Registrar, Inc.
- Dnv Industry, Inc., Quality Rating & Certification
- Hartford Steam Boiler Inspection and Insurance Company
- Litton Systems Canada Limited
- Performance Review Institute Registrar
- Perry Johnson Registrars, Inc.
- Quality Management Institute
- Tuv Essen

ANSI Role in Laboratory Accreditation

- Board resolution August 27, 1992
- "... Direct the BCCA to initiate an American National Accreditation Program for laboratories ... Conduct those appropriate activities to establish"

Laboratory Accreditation Task Force 1992-1993

- ACIL, The Association of Independent Scientific, Engineering, and Testing Firms - Chair
- College of American Pathologists
- Council of American Building Officials
- Underwriters Laboratories
- A2LA, American Association for Laboratory Accreditation
- American Industrial Hygiene Association
- NSF International
- ANSI Staff Secretary

Task Group Recommendation – March 1993

- ANSI role in promoting coordination
- Widely distribute "laboratory accreditation white paper"
- Market research to determine willingness to pursue white paper recommendations

White Paper Recommendations – March 1993

- Form a U.S. laboratory accreditation coordinating committee
- Identify common interests
- Promote public/private sector partnerships
- Negotiate with other bodies acceptance of laboratories test results
- Consider means to identify systems meeting international requirements
- Explore a laboratory accreditation MRA group

BCCA Recommendations – June 1994

- Directs the task force to expand its participation to include all interested public and private organizations with the vehicle to be a meeting of all such interests. The objective is to provide world wide mutual recognition of laboratory tests at minimum cost.

ANSI – NIST – ACIL Meeting – August 22, 1994

- International and foreign acceptance of results of tests as national competitiveness issue
- Domestic U.S. nation-wide acceptance complicated by patchwork of multiple accreditation systems and lack of mutual confidence in systems
- Laboratories face multiple and redundant accreditations – some not credible
- Lack of common utilization of international based criteria for laboratory accreditation systems
- Compelling need for U.S. industry attention

Prospects for Worldwide Acceptance of Product Certifications and Quality System Registrations

- International Accreditation Forum (IAF)
- ISO/IEC quality system assessment recognition (QSAR)
- Bilateral mutual recognition agreements
- Regional mutual recognition agreements

International Accreditation Forum Purposes

- Remove technical barriers to trade
- Build confidence in and world wide acceptance of certifications and registrations issued by accredited bodies
- Achieve equivalence of accreditation

International Accreditation Forum Purposes (cont'd)

- Desirability of mutual recognition
- Cooperate with one another
- Work with other international organizations
- Open to operators of national accreditation programs

International Accreditation Forum – Scope and Operation

- Quality systems registrations, product certifications, environmental system certifications
- Working groups on
  - Harmonized accreditation procedures
  - Procedures for multilateral agreements
- ANSI secretariat

International Accreditation Forum

Active participants (2 of 4 meetings)

Australia/New Zealand
Brazil
Canada
China
Germany
Japan
Italy
Korea
Switzerland
Sweden
Netherlands
United Kingdom
USA

International Accreditation Forum

- Meetings

January 28, 1993	Houston
April 30 - may 1, 1993	Geneva
January 12-14, 1994	Geneva
June 6-8, 1994	Geneva
January 18-20, 1995	Geneva

Communiqué International Accreditation Forum – January 28, 1993

- To engage in discussions to achieve equivalence of their accreditation programs/systems;
- On the desirability of mutual recognition of each other's accreditation systems in the international context of all relevant accreditation bodies with which mutual recognition may be desirable in furtherance of international trade;
- To cooperate with one another and other organizations in exchanging information and procedures in meetings to be known as the International Accreditation Forum.

Communiqué (IAF) – May 1, 1993

- Participants reaffirmed their desire to continue the process of cooperation;
- Recognized the market need for, and the critical role of, mutual recognition amongst bodies accrediting organizations;
- Confirmed their commitment to cooperate with ISO and IEC and to support their activities, in particular those of the ISO committee on conformity assessment, (ISO/CASCO).
- Recognizing the urgent need of all IAF stakeholders (e.g. purchasers, suppliers, conformity assessment bodies and regulatory agencies) to achieve global acceptance of certifications and registrations.

Communiqué (IAF) – January 14, 1994

- Reemphasized that the IAF is open to all accreditation bodies and their active participation is sought;
- Reaffirmed their desire to continue the process of cooperation;
- Reaffirmed their commitment to removing technical barriers;
- Reaffirmed their commitment to cooperate with ISO and IEC and to continue support of their activities, in particular those of the ISO committee on conformity assessment (ISO/CASCO) and the ISO/IEC ad hoc planning group on quality system assessment recognition (QSAR);

Communiqué (IAF) – January 14, 1994 (cont'd)

- Develop a structure and procedures for peer assessment among accreditation bodies using agreed requirements for accreditation;
- Develop assessment and recognition guidelines to ensure consistency in the processes used by certification/registration bodies;
- The forum welcomed QSAR's current intention that international recognition of quality systems certificates should be based upon accreditation bodies recognizing each other on the basis of a system of peer assessment.

Communiqué (IAF) – June 6-8, 1994

- Expressed satisfaction at the growing contribution of the use of accredited certifications/registrations in promoting international trade;
- Welcomed the joint initiative of Chrysler, Ford and General Motors to rely on accredited ISO 9001 certification/registration for assurance of their suppliers' capability.
- Identified the need for common understanding of the significance of quality system certification as a means of assuring quality;
- Reaffirmed its willingness to work with ISO/IEC in its QSAR initiative on the understanding that it would use, not duplicate, accreditation.

Communiqué (IAF) – June 6-8, 1994 (cont'd)

- Recognized the emerging international significance of environmental system certification and agreed to work toward international coordination of accreditation in this field;
- Agreed to extend its objectives to promote the international acceptance of product conformity certification;
- Agreed to consider at its next meeting the accreditation issues related to various proposals for certification/registration of software quality systems.

ISO/IEC System for Quality System Assessment Recognition

- Proposal for an international system to which ISO and IEC may lend their names, to respond to demands in respect to world-wide recognition of the competence of the assessment process and certification/registration activities, mainly in relation to the ISO 9000 standards.

Participating Certification/Registration Body

- A quality system assessment and certification/ registration body which delivers certificates of conformity to ISO 9000 standards and which has met the requirements of the ISO/IEC QSAR system for certification/registration bodies.

Qualified Accreditation Body

- A body which offers accreditation to quality system assessment and certification/registration bodies and which has met the requirements of the international system for accreditation bodies.

Primary Performance Objective of the International System

- When a supplier is registered by a participating certification/registration body in the ISO/IEC system, that certification/registration should be recognized as being valid by his customers, regardless of the location of the certification/ registration body, the supplier or the customer.

The Roles of ISO and IEC in the System

- Use of the ISO/IEC name
- Exclusive use of ISO, IEC, and ISO/IEC standards and criteria documents
- ISO/IEC QSAR as a Semi-Autonomous Subsidiary of ISO and IEC

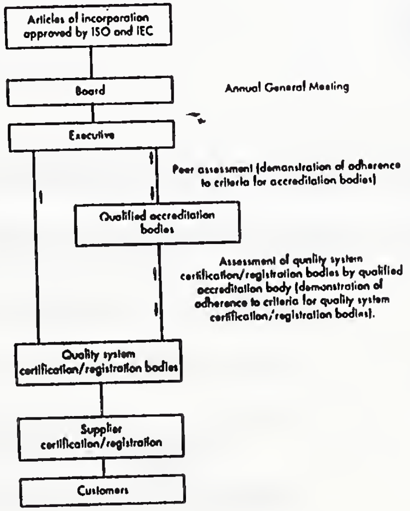
Access and Openness of the System

- The proposed system would be one in which accreditation bodies would become qualified through a peer evaluation against defined criteria. A grouping of accreditation bodies may be necessary to meet regional needs.
- A certification/registration body may utilize any qualified accreditation body without restriction.

Access and Openness (cont'd)

- Recognizing that some countries do not have accreditation bodies, a certification/registration body in those countries may apply directly to the secretariat whereby, with agreement, a qualified accreditation body can be appointed to carry out an accreditation thus "qualifying" the certification/registration body.

Structure


Articles of incorporation approved by ISO and IEC

Board

Annual General Meeting

Executive

Peer assessment (demonstration of adherence to criteria for accreditation bodies)

Qualified accreditation bodies

Assessment of quality system certification/registration bodies by qualified accreditation body (demonstration of adherence to criteria for quality system certification/registration bodies).

Quality system certification/registration bodies

Supplier certification/registration

Customers

Regional Activities

- European Accreditation of Certification (EAC)
- North American Trilateral Standards Forum (NATSF)
- Pacific Accreditation of Certification (PAC)
- Pan American Commission on Standardization (COPANT)

Bilateral Memorandum of Understanding (MOU)

- Acknowledge each other's role
- Recognize need for equivalence
- Acknowledge desirability of mutual recognition
- Agree on program to achieve mutual recognition

On-going Bilateral Discussions

• ANSI-RvC (Netherlands)	Certification
• ANSI-RAB-RvC (Netherlands)	Quality systems
• ANSI-JAS/ANS (Australia/New Zealand)	Certification
• ANSI-RAB-JAS/ANS (Australia/New Zealand)	Quality systems
• ANSI-RAB-NACCB (United Kingdom)	Quality systems

On-going Bilateral Discussions (cont'd)

• ANSI-RAB-JAB (Japan)	Quality systems
• ANSI-RAB-SINCERT (Italy)	Quality systems
• ANSI-SINCERT (Italy)	Certification
• ANSI-SCC (Canada)	Certification
• ANSI-RAB-SCC (Canada)	Quality systems
• ANSI-RAB-DGN (Mexico)	Quality systems
• ANSI-DGN (Mexico)	Certification

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

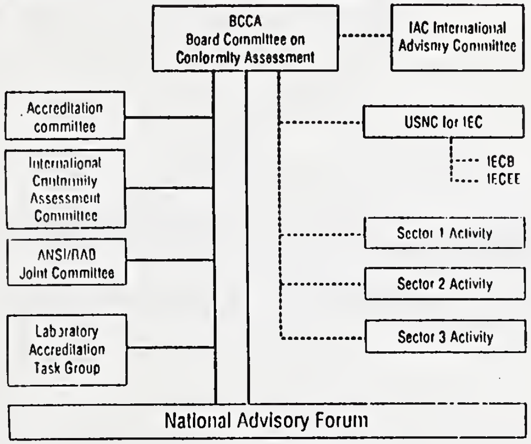
ANSI Approach to International Conformity Assessment

Leroy M. May
Senior Staff Consultant for Standards and Conformity Assessment
AT&T Network System

[Copies of 4 slides used follow]

ANSI Conformity Assessment Activities Organization

214


BCCA Board Committee on Conformity Assessment
IAC International Advisory Committee
Accreditation committee
International Conformity Assessment Committee
ANSI/RAB Joint Committee
Laboratory Accreditation Task Group
USNC for IEC
IECB
IECEE
Sector 1 Activity
Sector 2 Activity
Sector 3 Activity
National Advisory Forum

5 GW 10/1/94

ANSI APPROACH TO INTERNATIONAL CONFORMITY ASSESSMENT

- BOARD COMMITTEE ON CONFORMITY ASSESSMENT (BCCA)
  - ESTABLISHES U.S. PRIVATE SECTOR POLICIES
  - SETS ANSI GOALS 215
  - DEFINES STRATEGIC APPROACH
  - PARTNERS WITH U.S. GOVERNMENT

ANSI APPROACH TO INTERNATIONAL CONFORMITY ASSESSMENT

- INTERNATIONAL CONFORMITY ASSESSMENT COMMITTEE (ICAC) SUPPORTS BCCA OPERATIONALLY BY
  - PROVIDING U.S. EXPERTS TO ISO CASCO WORKING GROUPS 216
  - PERFORMING REVIEWS OF ISO CASCO DOCUMENTS
  - ADMINISTERING U.S. VOTING ON ISO CASCO DOCUMENTS
  - REPRESENTING U.S. AT ISO CASCO MEETINGS

ANSI APPROACH TO INTERNATIONAL CONFORMITY ASSESSMENT

- INTERNATIONAL CONFORMITY ASSESSMENT COMMITTEE ALSO HAS LIAISONS WITH OTHER COMMITTEES
  - U.S. NATIONAL COMMITTEE TO IEC TASK GROUP FOR CONFORMITY ASSESSMENT 217
  - U.S. TECHNICAL ADVISORY GROUPS (TAGS) TO ISO TECHNICAL COMMITTEES FOR QUALITY AND ENVIRONMENT
  - U.S. ACCREDITED STANDARDS COMMITTEES FOR RELATED SUBJECTS, E.G. SUPPLIER DECLARATION

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Testing and Certification of Telecommunication Equipment

Dr. Viktor N. Smirnov
Deputy Head
Department for Technical Policy in Certification
Committee of the Russian Federation
for Standardization, Metrology and Certification

A mandatory certification of telecommunication equipment in the Russian Federation is based on two laws: "On communications", and "On information, informatization and information protection". These laws have passed in January 1995.

Russia has now two certification systems:

- a mandatory certification system "Certification of technical means of electrical communication"; the central body of the system is the Ministry of Communication of the Russian Federation;

- a voluntary certification system "Certification of means and systems in the informatization area"; the central body of the system is the Committee for informatization policy attached to the President of the Russian Federation (ROSKOMINFORM).

Testing and certification of the means is implemented in compliance with national and international standards, mainly IEC, as well as in compliance with Recommendations of international commissions, such as International Consulting Commission on Telephone and Telegraph, International Consulting Commission on Radio Frequencies, International Union on Electric Communication.

A mandatory certification system in the area of electrical communication has now only one accredited certification body: it is the Department for Certification of the Ministry of communication. The central body sets rules and procedures in the area of certification and interfaces with GOSSTANDART in the areas both of certification and of accrediting of testing laboratories. Testing labs are accredited by GOSSTANDART jointly with the Ministry of Communication. The rules of accreditation have been accepted identical with the rules of accreditation of testing laboratories of the certification system GOST R.

There are 19 testing centers and labs working in the area of electrical communication.

A voluntary certification system in the informatization area is based on certifying bodies and testing labs: they are also accredited in accordance with rules of the certification system GOST

R. At the present time, there are 3 certifying bodies which are accredited, as well as over 30 testing labs.

Thus, beginning 1995, the procedures of testing and certification have been accepted and applied. Experience has shown us that due to a great number of kind of equipment to be tested and due to general complicated nature of testing procedures, in order to have comprehensive evaluation of equipment it usually ends up having to be tested in two or more labs.

Now a few words about testing of modified equipment that have been certified before. The full extent of its testing is usually determined by certification body. For example, if the manufacturer has the certified quality system, this permits to decrease the extent of testing needed to certify of modified equipment.

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Working Group

Conformity Assessment Programs

Albert D. Tholen
Chief, Laboratory Accreditation Program
National Institute of Standards and Technology
U.S. Department of Commerce

I am very pleased to have the opportunity to again talk with you about our programs. I have appreciated very much the hospitality that you showed us during our visit a year ago to Moscow, and I look forward to closer relationships and reciprocation among accreditation programs of two countries. I will talk about two programs, namely NVCASE and NVLAP. However, in the last couple of days, several my colleagues from the private sector in attendance has urged me to say something about an area of conformity assessment that is focused and recognized internationally. This started as for back as 1904 when NIST, then the National Bureau of Standards, established the National Conference on Weights and Measures, which is today grouping of all of states, federal agencies, manufacturers and industry. They meet in together in the development of regulation of legal metrology in the U.S.

In the area of legal metrology we have a system, which is coordinated by NIST since 1904. A part of that program also is a National Type Evaluation Program (NTEP): under that program a manufacturers of devices used in legal metrology submit them to NTEP for their attesting for conformity to national standards. The legal metrology standards in the U.S. are in full conformance with those of the International Organization for Legal Metrology (OIML). Under that program we had issued several hundreds certificates for measuring and weighing devices and at the present time the first issuance of an OIML certificate based on a NTEP certificate is under way. In addition to that, NIST operates an accreditation program, that currently accredits the laboratories in the all 50 states: mass, volume, length and in some labs temperature and pressure.

I want to add also, that we are working with the Environmental Protection Agency and have established the similar mechanism to bring together the private sector, the states and the federal governments in dealing with the conformity assessment in the environmental regulatory area.

So, NIST is not new to conformity assessment, and in the area, we have been talking about the last day and a half, as you have heard, many efforts are made to coordinate these activities.

The program that I am going to talk about first is the National Voluntary Conformity Assessment Systems Evaluation. Then I am going to make a presentation of the National Voluntary Laboratory Accreditation Program.

[Copies of 48 slides used follow]

U.S.-Russia Business Development
Committee
Standards Working Group

Conformity Assessment Programs

NVCASE

National Voluntary Conformity Assessment Systems Evaluation

NVCASE - Sections 286.1 to 286.12

- Purpose
- Scope
- Objective
- Implementation
- Program Requirements
- Public Consultation
- Evaluation Process
- Confidentiality of Information
- Maintaining Recognized Status
- Appeal
- Listings
- Termination

NVCASE - Purpose

To enable U.S. industry to satisfy mandated foreign technical requirements using the results of U.S.-based conformity assessment programs that perform technical evaluations comparable in their rigor to practices in the receiving country.

Acceptability of ..... results.... a matter of agreement between the two governments.

National Institute of Standards and Technology

We need to ensure that US. goods can reach those markets that are regulated!

Key Concepts of NVCASE

- Address foreign regulations for products
- Gain domestic product acceptance abroad
- No conformity assessment by NIST
- Limited Accreditation
- Primarily recognition

Key Concepts of NVCASE (cont.)

- Based on international criteria & procedures
- Criteria differ by activity and area
- Criteria applied based on public input
- Voluntary participation
- Fees, documentation, evaluation, on-sites
- Recognize conformity assessment bodies

NVCASE - Scope

- Laboratory Testing
  - Determine Product Sample Conformance to Specifications Standards
- Product Certification
  - Attestation of Product Conformance to Specifications or Standards
- Quality System Registration
  - Attestation of Organizational Conformance to Quality Management Standards (ISO 9000)

Conformity Assessment System Hierarchy

Test	Certify	Register
Accredit Laboratories	Accredit Certifiers	Accredit Registrars
Recognize Accreditation Body	Recognize Accreditation Body	Recognize Accreditation Body

NVCASE - NIST Program

- Recognition Level
  - Laboratory Accreditation Systems
  - Certification Accreditation Systems
  - Quality Registration Accreditation Bodies
- Accreditation Level
  - as required by Federal Law or regulation
  - where no accreditation activity exists.

NVCASE - NIST Program

▪ Conformity:	N.A.
▪ Accreditation:	Law, O.A. request, or industry need and service not now or potentially available; to public disadvantage.
Recognition:	Law, O.A. request, or industry need and no alternative available; to public disadvantage.

NVCASE - Objective

Identify the activities of requesting U.S. based conformity assessment bodies that have been evaluated as meeting requirements established for their acceptance by foreign governments.

NVCASE - Implementation

- Voluntary Participation
- Announcement of Criteria Development
- Consult Other Agencies
- Evaluation
  - Generic Requirements; Standards & Guides
  - Specific Criteria: Foreign Technical Requirements
- Cost Reimbursement

NVCASE - Program Requirements

- Generic Requirements
  - Developed with Public Input
  - Based on International Guides
- Specific Criteria
  - Developed with Public Input
  - Relate to Foreign Requirements

NVCASE - Public Consultation

- Advice and Technical Assistance from All Parties
- USG Agencies Informed and Advice Sought on Actions
- Program Requirements - Developed using Workshops and Other Public Means
- Federal Advisory Committees Consulted

NVCASE - Evaluation Process

- Application: Request for Evaluation
- Fee: Initial & Final
- Documentation: System & Procedures
- On-Site Assessment
- Final Review and Decision
- NIST Action: Certificate or Denial

NVCASE - Confidentially of Information

- All information is confidential.
- Information only released under FOIA, but subject to DOC disclosure rules

NVCASE - Maintaining Recognized Status

- Continuously meet all requirements
- Conduct surveillance and reassessments

NVCASE - Appeals

- Appeals to Director of NIST
- Reviews by Deputy Chief Counsel

NVCASE - Listings

- Lists of all current certificate holders, with assessment areas.
- List of conformity assessment bodies accredited by NIST recognized bodies, with assessment areas.

NVCASE - Termination

▪ Voluntary:	By participant
▪ Involuntary:	NIST withdraws certificate if organization fails to continue compliance, or necessary in the public interest

NVCASE - Primary Goal

The primary goal of NVCASE is to provide a means to instill confidence to foreign governments in the competence of US. conformity assessment bodies to test or certify products for acceptance in their regulated portion of the market.

NVCASE - Criteria

NVCASE criteria will be based on appropriate ISO/IEC Guides and Standards, and specific international criteria as appropriate.

NVCASE - Scope/Concepts

- Conformity:

  Comparing a product, process, service, or system with a standard or specification, test, certify, or register.

- Accreditation:

  Evaluation based on requirements for acceptance of laboratories, certifiers, or registrars.

NVCASE - Scope/Concepts

- Recognition

  Evaluation based on requirements for acceptance of accreditors.

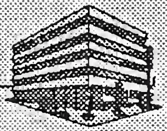
NVCASE

- Program requires;
  - Quality System Evaluation
  - On-Site Assessment
  - Deficiency Resolution
  - Notification of Organizational Changes
  - Periodic Surveillance

NIST United States Department of Commerce
National Institute of Standards and Technology

NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM

NVLAP®



What is NVLAP?

- Established in 1976
- Through the US.... Code of Federal Regulations (Part 285, Title 15)
- Linked to NIST measurement research
- Based on ISO/IEC standards and guides
- As a process for accrediting laboratories
- Administered by NIST
- Covering all fields of testing and calibration
- Available to any qualifying laboratory
- On a fee supported basis

Purpose

- NVLAP is:
  - A system for accrediting laboratories found competent to perform specific tests or types of tests
- NVLAP is not:
  - A certifier of test data
  - A certifier of products
  - An operator of a certification program

NVLAP - Operational Basis

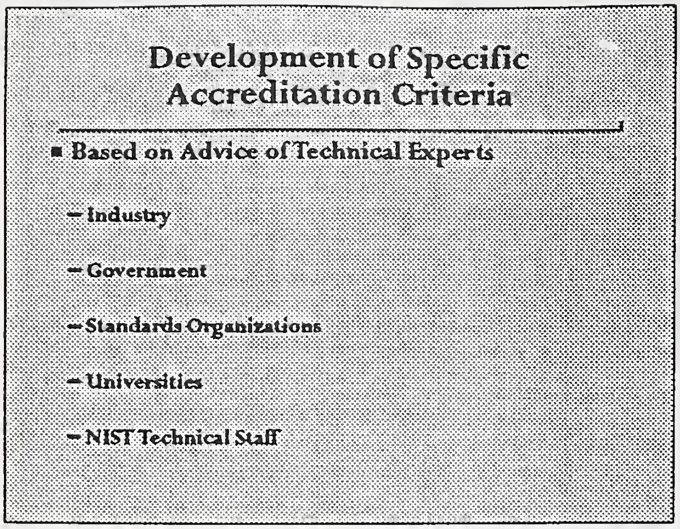
- Consistent with ISO Guides 25 AND 58
  - ISO Guide 25, "General requirements for the competence of calibration and testing laboratories"
  - ISO Guide 58, "Calibration and testing laboratory accreditation systems - General requirements for operation and recognition"
- NIST Handbook 150
  - NVLAP General Procedures and Requirements
    - A- General Information
    - B- Establishing a LAP
    - C- Accrediting a Laboratory
    - D- Conditions and Criteria for Accreditation

ISO Guide 25 - Subjects

- Quality System
- Staff Competence and Training
- Facilities and Equipment
- Calibration and Traceability
- Test Methods and Procedures
- Recordkeeping
- Test Reports

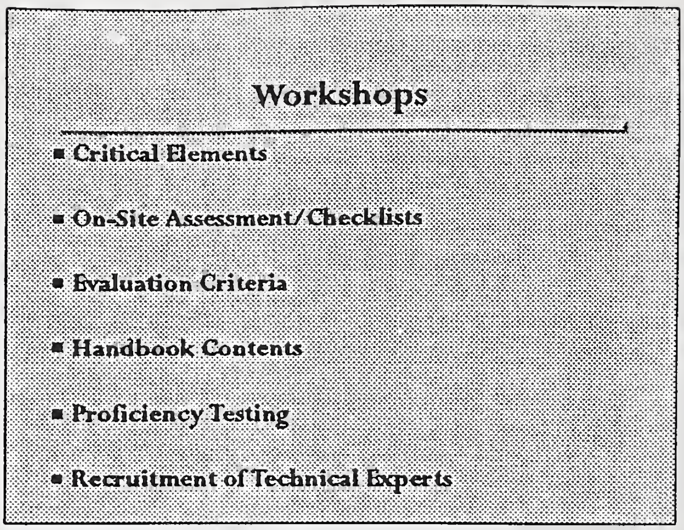
ISO/IEC Guide 25

"Laboratories meeting the requirements of this Guide (25) comply, for calibration and testing activities, with the relevant requirements of the ISO 9000 Series of Standards, including those of the model described in ISO 9002, when they are acting as suppliers producing calibration and test results"



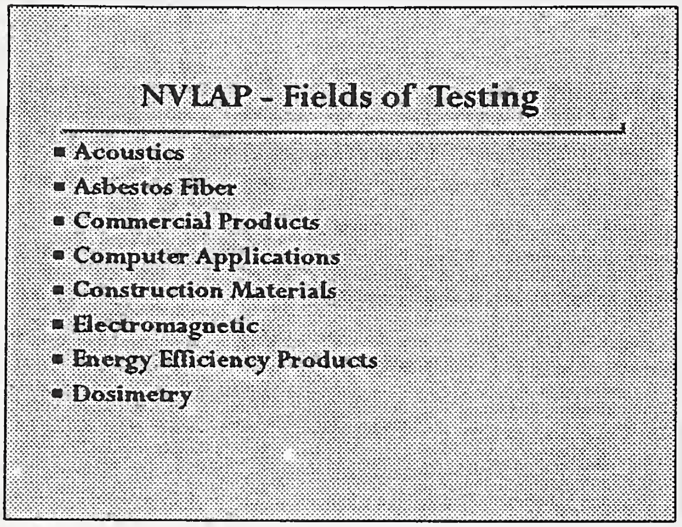
Development of Specific Accreditation Criteria

- Based on Advice of Technical Experts
  - Industry
  - Government
  - Standards Organizations
  - Universities
  - NIST Technical Staff



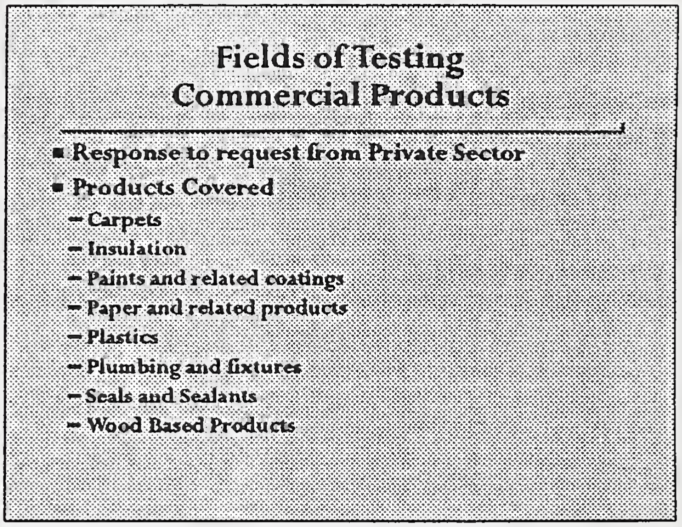
Workshops

- Critical Elements
- On-Site Assessment/Checklists
- Evaluation Criteria
- Handbook Contents
- Proficiency Testing
- Recruitment of Technical Experts



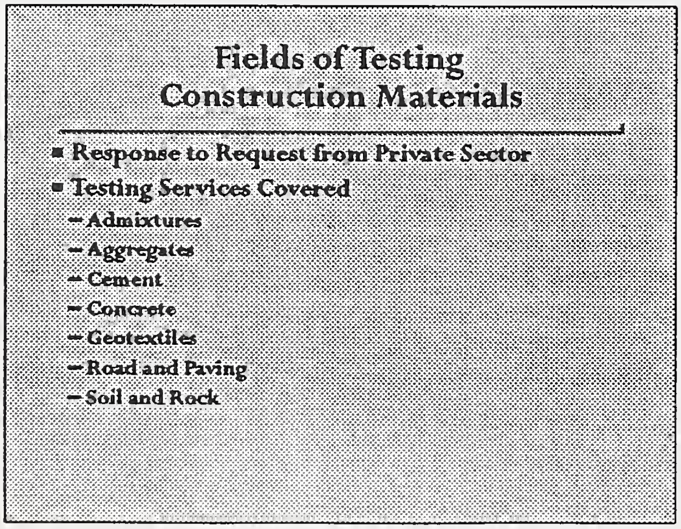
NVLAP - Fields of Testing

- Acoustics
- Asbestos Fiber
- Commercial Products
- Computer Applications
- Construction Materials
- Electromagnetic
- Energy Efficiency Products
- Dosimetry



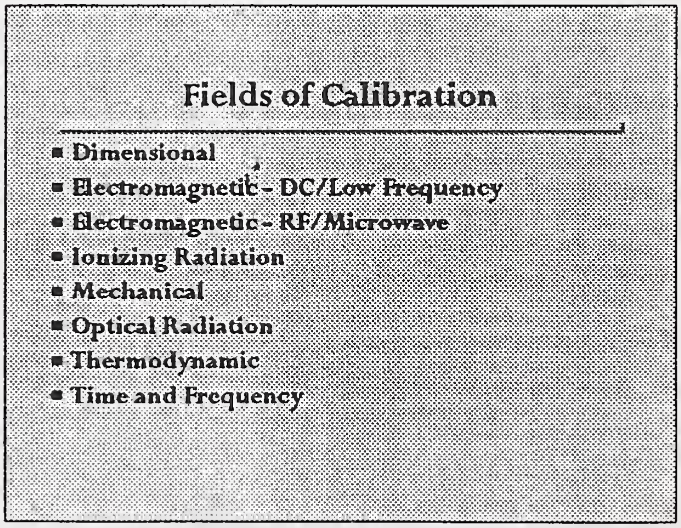
Fields of Testing Commercial Products

- Response to request from Private Sector
- Products Covered
  - Carpets
  - Insulation
  - Paints and related coatings
  - Paper and related products
  - Plastics
  - Plumbing and fixtures
  - Seals and Sealants
  - Wood Based Products



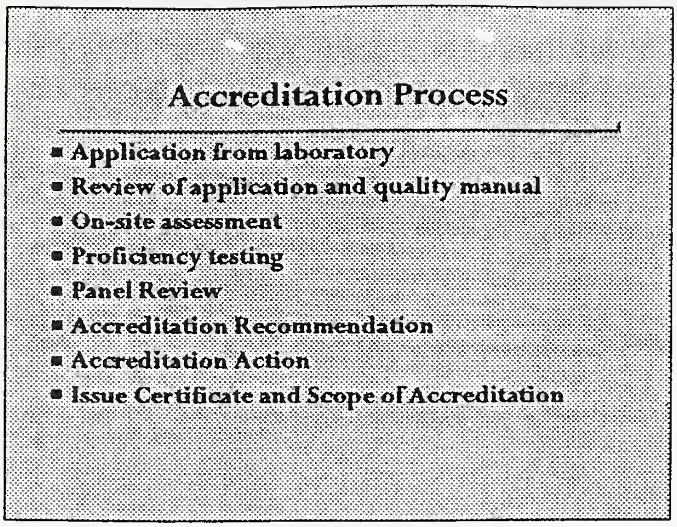
Fields of Testing Construction Materials

- Response to Request from Private Sector
- Testing Services Covered
  - Admixtures
  - Aggregates
  - Cement
  - Concrete
  - Geotextiles
  - Road and Paving
  - Soil and Rock



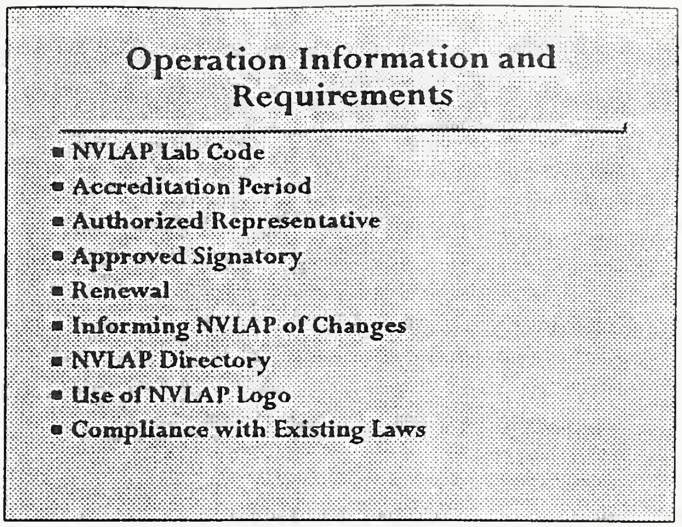
Fields of Calibration

- Dimensional
- Electromagnetic - DC/Low Frequency
- Electromagnetic - RF/Microwave
- Ionizing Radiation
- Mechanical
- Optical Radiation
- Thermodynamic
- Time and Frequency



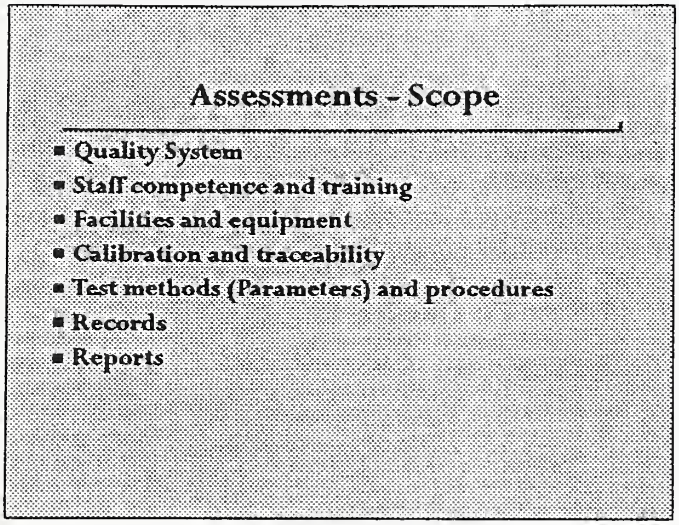
Accreditation Process

- Application from laboratory
- Review of application and quality manual
- On-site assessment
- Proficiency testing
- Panel Review
- Accreditation Recommendation
- Accreditation Action
- Issue Certificate and Scope of Accreditation



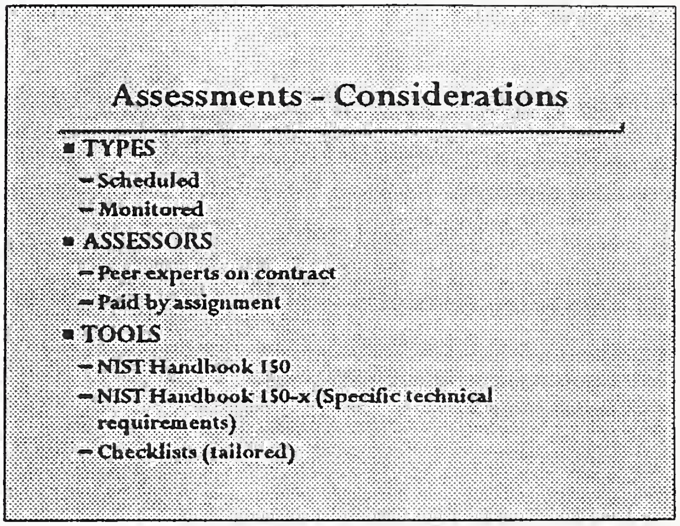
Operation Information and Requirements

- NVLAP Lab Code
- Accreditation Period
- Authorized Representative
- Approved Signatory
- Renewal
- Informing NVLAP of Changes
- NVLAP Directory
- Use of NVLAP Logo
- Compliance with Existing Laws



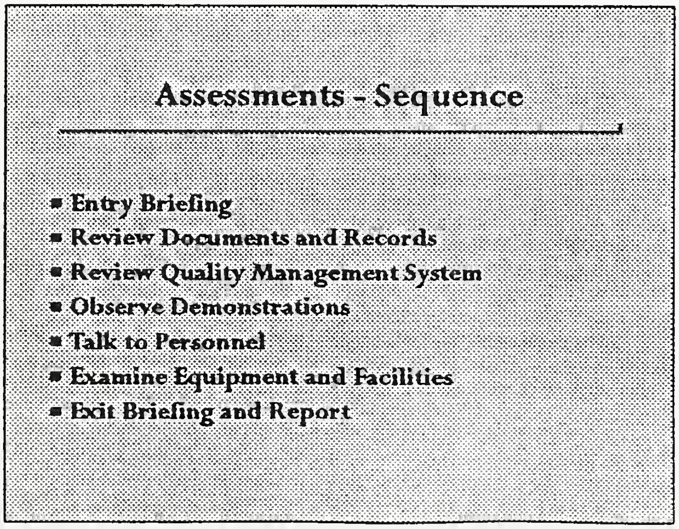
Assessments - Scope

- Quality System
- Staff competence and training
- Facilities and equipment
- Calibration and traceability
- Test methods (Parameters) and procedures
- Records
- Reports



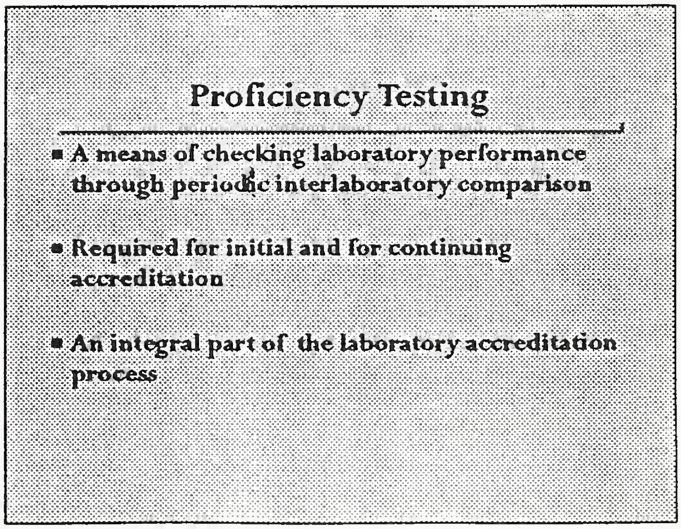
Assessments - Considerations

- TYPES
  - Scheduled
  - Monitored
- ASSESSORS
  - Peer experts on contract
  - Paid by assignment
- TOOLS
  - NIST Handbook 150
  - NIST Handbook 150-x (Specific technical requirements)
  - Checklists (tailored)



Assessments - Sequence

- Entry Briefing
- Review Documents and Records
- Review Quality Management System
- Observe Demonstrations
- Talk to Personnel
- Examine Equipment and Facilities
- Exit Briefing and Report



Proficiency Testing

- A means of checking laboratory performance through periodic interlaboratory comparison
- Required for initial and for continuing accreditation
- An integral part of the laboratory accreditation process

Accreditation - Options

- Accreditation
- Denial of Accreditation
- Suspension of Accreditation
- Revocation of Accreditation
- Termination of Accreditation

(Adverse decisions can be appealed)

Advantages to Procurement Agents and Regulatory Authorities

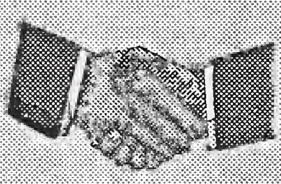
- Identification of competent laboratories
- Means to implement certification
- Process to upgrade testing and calibration (Directly)
- Process to upgrade products (Indirectly)

"Added Value" of NVLAP Accreditation

- Transfer of NIST Measurement Technology
- Institutionalize Quality System Management
- Meeting ISO/IEC Standards
- Integrated with -
  - Mutual Recognition Agreements (Australia, Canada, New Zealand)
  - North American Calibration Co-operation (NACC)
  - European Accreditation/Laboratories (EAL)
  - International Laboratory Accreditation Conference (ILAC)

In Conclusion

- Thank you for your interest in NVLAP
- I hope that the information is useful
- Let me know if you would like additional information
- Any questions?



Presentation to Intergovernmental U.S.-Russia Business Development Committee's Working Group

National Recognized Testing Laboratories

Charles E. Adkins
Director, Technical Support
Occupational Safety and Health Administration
U.S. Department of Labor

[Copies of 11 slides used follow including two slides identifying Federal Register Notices referenced in the talk]

OSHA - NRTL Program

National Recognized Testing Laboratories

1970 - **The Occupational Safety and Health Act:**

Established the Occupational Safety and Health Administration;

Charged with assuring so far as possible Safe and Healthful workplaces. There must be an employee/employer relationship and be workplace related for OSHA to be involved;

OSHA immediately adopted consensus standards;

OSHA later began to develop New Regulations or Standards;

Original Consensus Standards required electrical equipment that is used in the workplace to have a Factory Mutual or Underwirters Label on the product before it could be used.

In 1984 OSHA published rules setting up the National Recognized Testing Laboratories (NRTL) program. This program would permit other companies with electrical testing capabilities to apply for recognition to test electrical equipment to be used in the workplace.

The NRTL applicant must demonstrate the ability to examine and test equipment to assure conformity with identified test standards. The applicant identifies the standards for which they are seeking recognition to test under the NRTL Program.

Each applicant, if given recognition:

Must Identify listed or labeled equipment which has been tested and meets designated standards;

Must inspect each production run of equipment which is being labeled with their NRTL mark;

Must conduct field inspections of manufacturers;

Must be independent from product being labeled;

Must develop reports of findings;

Test Standards are required by OSHA to:

Be recognized in the United States;

Be compatible with most recent revision of the standard;

Be a consensus standard;

Be approved by the Assistant Secretary if it is an alternative protocol;

Each NRTL is given a five year recognition by OSHA.

Alternative programs are being looked at to lessen the burden on the U.S. Government. These reviews are in the very early stages. Seeking contractor assistance may be a first step.

OSHA makes initial site visits as well as annual visits.

Alternative programs are being explored in this area also.

OSHA recently issued an interpretation of the 1984 regulation to provide additional flexibility to the program. These interpretations also make it possible to explore Mutual Recognition Agreements with other countries.

The interpretation will permit:

An NRTL to accept data from independent labs;

An NRTL to accept product evaluations from other NRTLs or independent Labs;

An NRTL to accept and use witness test data;

An NRTL to accept test data from non-independent labs;

Minor modifications of product before total reevaluation of the product;

To accept product evaluations from organizations that function as part of the International Electrochemical Commission Certifying Body (IEC-CB) scheme;

Currently there ar twelve Nationally Recognized Testing Laboratories and these labs have more than two dozen sites that are approved for testing.

OSHA is working in two additional areas that would modify the NRTL program.

OSHA is looking into the possibility of establishing a registered NRTL trade mark and requiring all NRTLs to use the mark on products tested as part of the NRTL program. Most NRTLs currently test products that are not part of the NRTL program. Identifying which product is tested under which program is confusing. The use of a NRTL mark would eliminate this confusion. At this time, we have indicated that additional action will be posted in the Federal Register. It is expected that the next action will be to seek comments on the approach to take. There is a question by some as to the ability of OSHA to do this without entering into rulemaking.

In addition to the mark, OSHA is working with representatives of the United States and the European Union to develop a Mutual Recognition Agreement for the testing of electrical products. OSHA has developed a draft agreement and submitted to the EU for discussions at the next meeting which will be in the United States next month.

Thank you for the opportunity to give you this brief introduction to the OSHA NRTL program. I will be happy to provide addition information if that is of interest.

APR 7 1995

NRTLs

NRTL 1 -
Leonard Frier
MET Laboratories, Inc. (MET)
914 West Patapsco Avenue
Baltimore, Maryland 21230

NRTL 2 -
Glen R. Dash
Dash, Straus and Goodhue, Inc. (DS&G)
593 Massachusetts Avenue
Boxborough, Massachusetts 01719

NRTL 3 -
Steven G. Roll
ETL Testing Laboratories, Inc. (ETL)
Cortland Safety Division
Industrial Park
Cortland, New York 13045

NRTL 4 -
George Gruss
American Gas Association Laboratories (AGA)
8501 East Pleasant Valley Road
Cleveland, Ohio 44131

NRTL 5 -
William S. Hurst
Communication Certification Laboratory (CCL)
1940 West Alexander Street
Salt Lake City, Utah 84119

NRTL 6 -
Pat Paladino
Canadian Standards Association (CSA)
178 Rexdale Boulevard
Rexdale (Toronto), Ontario, Canada M9W 1R3

NRTL 7 -
David A. Heywood
United States Testing Company, Inc./California Division (UST/CA)
5555 Telegraph Road
Los Angeles, California 90040

NRTL 8 -
Alex B. Wenzel
Southwest Research Institute (SwRI)
6220 Culebra Road
Post Office Drawer 28510
San Antonio, Texas 78228

NRTL 9 -
Joseph T. Hazeltine
Wyle Laboratories (WL)
7800 Governors Drive
P.O. Box 077777
Huntsville, Alabama 35807

NRTL 10 - Kim L. Phillipi
Entela, Inc. (ENT)
3033 Madison, S.E.
Grand Rapids, Michigan 49548

NRTL 11 - David C. Seetaja
Underwriters Laboratories Incorporated (UL)
818 18th Street, N.W.
Suite 400
Washington, D.C. 20006

NRTL 12 - Robert L. Martell, Jr.
Factory Mutual Research Corporation (FMRC)
1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood, Massachusetts 02062

Applicants

Edward Spooner
TUV Rheinland of North America, Inc. (TUV)
11995 El Camino Real
Suite 101
San Diego, California 92130

Jean-Pierre Wolff
Electro-Test, Inc. (ETI)
5645 Gibraltar Drive
Pleasanton, California 94588

Mark A. Pacheco
Innovative Testing Laboratories (ITL)
5403 West Gray Street
Tampa, Florida 33609

Jordan V. Sukert
Applied Research Laboratories (ARL)
5371 N.W. 161st Street
Miami, Florida 33014

William McGinnis
National Technical Systems (NTS)
1146 Massachusetts Avenue
Boxborough, Massachusetts 01719

Jim F. Hills
Applied Technical Services, Inc. (ATS)
1190 Atlanta Industrial Drive
Marietta, Georgia 30066

See:
Federal Register Notice
Vol.60, No. 46
Thursday, March 9, 1995

See:
Federal Register Notice
Vol. 53/No. 70
Tuesday, April 12, 1988

Presentation to Intergovernmental U.S.-Russia Business Development Committee's Working Group

United States Food and Drug Administration Programs

Les Weinstein, Esq.
Regulatory Counsel
Center for Devices and Radiological Health
Food and Drug Administration
U.S. Department of Health and Human Services

The U. S. Food and Drug Administration (FDA) is a scientific and regulatory Federal government agency located in the Department of Health and Human Services. Its annual budget, appropriated by the U.S. Congress, is approximately $800 million, which primarily comes from taxpayers. The Federal Food, Drug and Cosmetic Act is the basic food and drug law of the United States. It is the most extensive law of its kind in the world. It delegates to FDA the responsibility for ensuring that foods are safe and wholesome; human and animal drugs, medical devices and human biological products like serum, vaccine and blood and blood products are safe and effective; that these regulated products are honestly, accurately and informatively labeled; that these products are in compliance with FDA regulations and guidelines; that noncompliance is identified and corrected; and that any unsafe products are removed from the marketplace. Another law, the Radiation Control for Health and Safety Act, protects the public from unnecessary exposure to radiation from electronic products. FDA administers this law as well.

In the United States the development, production and sale of these products are performed by private businesses and individuals, not the FDA, which is a completely separate entity. FDA exercises regulatory control over these functions, however. To exercise this control, FDA has approximately 10,000 employees, which include physicians, lawyers, inspectors, scientists and engineers.

FDA consists of six major divisions, each with different responsibilities: The Center for Devices and Radiological Health (where I work), the Center for Drug Evaluation and Research, the Center for Biologics Evaluation and Research, the Center for Food Safety and Applied Nutrition, the Center for Veterinary Medicine, and the Center for Toxicological Research. Two thirds of the employees work at headquarters in the Washington, D.C. area; the remainder work in field offices located in various cities across the United States.

This afternoon I would like to focus on how FDA regulates medical devices, with a particular emphasis on the role of Good Manufacturing Practices (GMPs) and other standards against which we assess conformance. The law gives FDA authority to assure that medical devices are safe and effective by using premarket and postmarket controls. Examples of devices, to name just a few, include eye glasses, hearing aids, contraceptive devices including condoms, medical and surgical instruments, cardiac pacemakers, hot water bottles, medical gloves, bandages, hemodialysis machines, orthopedic and prosthetic devices, implants, some diagnostic health kits, and some electronic products such as medical lasers, ultrasound and X-ray equipment.

Because medical devices vary widely in their complexity and degree of risk, all do not need the same degree of government regulation. So devices are classified into one of three regulatory categories or classes: Class I, the lowest level of regulation in which general controls are sufficient to provide reasonable assurance of safety and effectiveness. General controls include regulations that prohibit false and misleading labeling; that require manufacturers to notify FDA that they make such devices and list the devices they make, and that govern GMPs. Examples of Class I devices: crutches, elastic bandages and toothbrushes. Class II, subject to general and special controls. This is the medium level of regulation. Special controls may include mandatory performance standards and patient registries. Examples of Class II devices include blood pumps, catheters and electrocardiograph electrodes. Class III, Premarket Approval. This is the most stringent class and covers devices that are life sustaining or life supporting, implanted in the body, or pose potential unreasonable risk of illness or injury. Because general and special controls would not provide reasonable assurance of safety and effectiveness, these devices are required to have an FDA approved premarket approval application. Example of Class III devices are cardiac pacemakers, intraocular lenses, and heart valve replacements.

In order for a firm to market any device, regardless of its class, it must submit to FDA one of two kinds of marketing applications: a premarket notification (510(k)) or a premarket approval application (PMA). Most devices require that the firm submit a 510(k) rather than a PMA. The firm submits the 510(k) application to FDA at least 90 days before marketing the device in order to show that the device is substantially equivalent (it does not have to be identical) to a device that is already legally marketed. The 510(k) must contain a description of the device, safety and effectiveness data, and a statement and data showing how the device is similar to and/or different from other comparable devices already on the market. The firm does not actually have to submit the device itself to FDA for testing, just the data and labeling. If FDA, after evaluating the application, finds the device substantially equivalent to a device already legally marketed, FDA gives permission for commercial distribution. Class III devices require premarket approval rather than a 510(k) before being introduced into commerce. A PMA application must contain data proving that, based on laboratory testing and testing in humans, the device is safe and effective for its intended use; a description of manufacture methods, facilities and controls; any applicable performance standards; and proposed labeling. Samples of the device may be required. The PMA review process by FDA includes an in-depth scientific and regulatory review, assisted by recommendations from advisory committees of outside experts, and on an inspection of the facility to assess conformance with GMPs.

FDA's GMP regulation requires that domestic and foreign manufacturers of medical devices intended for commercial distribution in the United States have a comprehensive quality assurance program. The GMP regulation requires that various specifications and controls be established for devices and that finished devices meet these specifications. Thus, the GMP regulation helps assure that medical devices are safe and effective. FDA monitors device problem data and periodically inspects the facilities of device manufacturers to assess conformance with GMPs.

GMPs cover quality assurance programs and organization, buildings, equipment, components, production and process controls, packaging and labeling controls, distribution and installation, device evaluation, and records. The GMP regulation, however, is flexible; it allows manufacturers to implement a quality assurance program that is appropriate to the specific device they manufacture. Operating within this flexibility, it is the responsibility of each manufacturer to establish requirements for each type of device that will result in devices that are safe and effective. The GMP regulation identifies the essential elements that a quality assurance system must contain but it does not prescribe specific ways to achieve them; it allows some leeway in the details and quality assurance programs. Manufacturers may determine for themselves the need for certain quality assurance elements and may develop and implement specific procedures that are appropriate to their particular manufacturing process and devices. In the absence of specific guidance from FDA, manufacturers may rely on industry, national and international consensus standards that are acceptable to FDA in meeting GMP requirements. Speaking of international standards, FDA is in the process of revising its device GMP regulation to make it compatible with, though not identical to, the ISO 9001 quality standards. When the revision is final, foreign devices produced in accordance with ISO standards will likely be in conformance with our GMP requirements, and U.S. devices will be more likely to meet the requirements of other countries.

In addition to using GMPs in its device evaluation process, FDA also uses other standards and guidances either from standards organizations or guidances developed within FDA. For example, many devices are intended to meet certain standards. If a marketing application comes into FDA, we make an assessment to see if the device conforms to the criteria for testing and design controls, etc. that are in the standards. If it does not, we may refuse to accept the application. Also, assessing whether a device conforms to certain standards helps us shorten the time it takes us to make a decision to approve the device. We use standards for test methods such as Good Laboratory Practices (GLPs) or a certain type of toxicology study; we also use device specific standards. The use of standards also helps us reclassify devices and identify the appropriate controls to put in place to ensure safety and effectiveness.

Because of the importance of standards to our work, FDA has been actively participating in the development of voluntary standards for medical devices and radiation emitting devices for more than 20 years. We have a commitment to use the standards we help develop. We currently participate in 429 standards development efforts with 38 different organizations. 115 of these standards are being developed by 9 international organizations.

The use of international standards facilitates the process of harmonizing regulatory requirements. FDA believes that there are many public health benefits to be derived through international harmonization: indeed, FDA's involvement in international activities has recently increased dramatically. Of particular interest to all of you here today are FDA's activities involving the Russian Federation. For the past couple of years, FDA has been working closely with, and providing technical assistance to, the Russian Ministry of Health and Medical Industry and the State Committee on Sanitary and Epidemiological Surveillance. In May, 1993, FDA conducted a workshop in Moscow at which we described how we regulate various products. The workshop was attended by over 300 Russian officials and scientists. In February, 1994, FDA entered into a Memorandum of Understanding (M.O.U.) in which Russia agreed to streamline its registration/approval procedure for U.S. pharmaceuticals and biological products that FDA has approved for marketing in the United States. That MOU states that similar MOUs will be entered into regarding food and medical devices. Recently a team of FDA food experts went to Moscow to learn how Russia regulates food products. While there, they met with GOSSTANDART officials. An FDA team of medical device experts will probably be going to Moscow next. They will want to meet with GOSSTANDART officials as well. After all, FDA and GOSSTANDART have much in common: FDA has consumer protection responsibilities, and GOSSTANDART is responsible for administering the new Russian Federation law called "On Protection of Consumer Rights," which covers many of the same products FDA regulates. So our two agencies should look forward to future cooperative efforts to ensure that the products we regulate are safe and do not endanger the public's health.

Presentation to Intergovernmental U.S.-Russian Business Development Committee's Working Group

Interlink Group Corporation

Vladimir Ivashkov
President
Interlink Group Corporation

I would like to thank you for this opportunity to inform you about the activities of Interlink Group Corporation.

I will start by describing the principles which form the basis of our work at Interlink.

Although our company was incorporated in 1992, the principles underlying its activities were developed over several years prior to its formation. Since the first days of Perestroika, during the development of the basic concepts of Russian private enterprise when the first steps were taken toward conversion, we began to develop business and industrial contacts with American partners. Our main purpose was to secure in Russia a form of business which was new to us. Through the opportunities afforded by conversion we planned to develop mutually beneficial and profitable business ties with our western partners.

Interlink now works with different regions of the former Soviet Union: the central region (Moscow and St. Petersburg), the Ukraine, Uzbekistan, areas of the Far North, as well as others. We have a special focus on the Taimyr region which has vast resources of raw materials processed by "Norilsk Nickel," the world's largest concern for the production of non-ferrous metals. A characteristic feature of this region is that it is linked to the rest of the world only through the North Sea and that for many years this region was a restricted zone. These factors have left a specific imprint on its development. Currently, we are working on several projects aimed at developing the infrastructure of Taimyr. They include the construction of a Norilsk-to-Port Dudinka railroad line, the reconstruction of the airport and the development of recently discovered oil resources.

As I mentioned, we place a special focus on projects involving conversion technologies, such as the dismantling of nuclear submarines, the recovery of scrap metal from former warships, and the use of laser technology for peaceful purposes.

For example, Interlink was instrumental in putting together a joint project for the development of a laser perforator - an instrument with which it is possible to obtain blood samples from patients through laser radiation without sharp instruments or needles. The idea for such a device was conceived in late 1970's by Russian scientists at the Physical Institute of the Russian Academy of Sciences. At the time they were investigating military applications for laser radiation. We were able to bring together Russian scientists and American scientists from the

Biomedical Research laboratory of the University of Arkansas for Medical Sciences. Finally, we also worked with the U.S. Food and Drug Administration and involved an American company in the production of the perforator devices.

Another project, also based on modern laser technology, is the production of three-dimensional images in clear media. Scientists from the Laser Center of the Moscow Technical University, who were working on the development of powerful lasers for the destruction of military optical devices, developed a unique method of forming images with lasers.

Currently we are organizing a joint research project between scientists from Moscow Technical University and American scientists aimed at further development of this laser technology. The project is supported by the International Society for Optical Engineering, of which Interlink Group Corporation is a member.

These two projects demonstrate the transformation of technologies of destruction onto those that provide useful services for mankind.

In this way, Interlink is involved in many different spheres of commerce, science, technology and manufacturing. Operations in these areas are conducted by several departments which include: Trade and Marketing Department; Department of Science and Technology; Construction Department; and Department for Conversion Research.

At the initiative of Interlink, the State Committee of the Defense Industry of the Russian Federation made a decision to establish a Technical Marketing Center at Interlink for optical products with a permanent exhibition entitled "Optics from Russia." This decision was supported by OPTOPROM, a Russian joint stock company of optoelectronic engineering which incorporates more than sixteen research institutes and industrial enterprises of the former Soviet Union's optics industry.

The Technical Marketing Center and the exhibition were opened on February 15 of this year at Interlink in New York.

The exhibition and the center were established for several purposes:

- marketing of Russian optical products on the American continent;

- development of scientific, technological and economic cooperation between the former Soviet Union optical enterprises and western companies;

- creation of an information system on optical products that will allow a realistic comparison between Russian products and those of other countries, as well as an assessment of potential means for the modernization and improvement of optical products form the former Soviet Union;

- development of a price policy for Russian optical products and coordination of activities of Russian producers in the world market;

- organization of joint scientific-technological laboratories for Russian and American technical achievements. As the first step, we are currently opening holographic and laser laboratories; and

- organization of a Russian-American Center for certification of optical products.

Many questions on the formation of the Metrological Center have been settled, but other major questions are still in the process of being resolved. There are:

1. The need for active involvement of American Metrological Organizations in the work of this Center, which can be accomplished by several means:

    - through agreements on the joint certification of applicable metrological centers, that is by means of mutual certification in the U.S. and in Russia; or

    - through the leasing or renting of equipment in American laboratories, certification by the Russian GOSSTANDART and the use of this equipment by American and Russian metrologists, or;

    - through the leasing of equipment and its installation in newly created laboratories.

2. Creation of a main coordination council, which would consist of representatives from various interested organizations and which would be responsible for determining policies with regard to certification.

3. If until recently the question of joint certification was only for optical products, today there are many other branches of industry which contact us with similar proposals - for instance: the creation of a Russia-American Aerospace Metrological and Certification Center; the creation of a joint certification center for rare and precious metals and for analytical laboratories; the creation of a joint certification center for a wide range of medical products and equipment; as well as others.

In this way, through solving problems by means of the metrological Center for optical products, we are taking a first step towards the resolution of a broader problem, the creation of a center for specifications related to a wide assortment of products.

I thank you for your attention.

Presentation to Intergovernmental U.S.-Russia Business Development Committee's Standard Working Group

On Establishment of the Russian-American Center for Certification of Optical Products

Dr. Viktor I. Sapritsky
Head of Laboratory
All-Russian Research Institute for Optical
and Physical Measurements (VNIIOFI)
GOSSTANDART of Russia

The Committee of the Russian Federation for standardization, metrology and certification is entrusted to govern the activities in the area of uniformity of measurements assurance in accordance with clause 4 of the law "On uniformity of measurements".

The rules and procedures of measurement instrument's pattern approval were established by this law and by national standards and regulations. Measurement instruments are tested by the All-Russian research metrological institutes of GOSSTANDART, accredited in their fields of measurements, and, in some circumstances, by the other specialized institutions, if they have required accreditation from GOSSTANDART.

At the present time, several testing centers were accredited in the optical quantities measurements. Among them are the All-Russian Research Institute for Optical-Physical Measurements (VNIIOFI) and the State Optical Vavilov Institute.

VNIIOFI acquired its accreditation in 1990, and in 1994 it was reaccredited as the State Center for testing of measuring optical and photometric instruments and of medical ones.

The accreditation area of the Center has been indicated according to the types of measurements, as follows:

- laser radiation energy parameters measurements;
- noncoherent radiation parameters measurements;
- high speed processes parameters measurements;
- holographic measurements;
- optical and light measurements;
- thermal measurements;
- length measurements;

- measurements of fibre-optical communication systems parameters;
- biophysical measurements.

Besides, in 1994 VNIIOFI established the Testing Center for raw materials and substances by the means of laser microstructural analysis. This Center also has been accredited by the GOSSTANDART.

At the moment, the works are carrying out on the VNIIOFI's and industrial facilities' bases to establish both a Testing Center for lighting and optical equipment and an appropriate Certification Body.

Considering the mutual interests in the U.S. and in Russia to export the various types of optical products it seems to be expedient to establish the Joint Testing Center for certification of optical products and optical-physical measuring instruments.

It is anticipated to establish in the U.S. the Russian-American Center for Certification of optical products (RACC) using the achievements of Russian optics and metrology and good interaction between NIST and the Metrological Research Institutes of Russia. The main goals of the Center are as follows:

- testing of optical products, and
- measuring instruments calibration.

The establishment of the Center will be assuring the testing of foreign optical products and measuring instruments to be imported by Russia, as well as of the Russian-made optical products to be imported by the USA and other countries, and their evaluation according to the U.S., Russian and international standards.

It is also planned to organize an affiliated Information and Service Center to provide both the exhibitions, seminars and lectures of Russian scientists and experts in the field of optics and metrology, and maintenance of a corresponding equipment.

The above-mentioned Center should be furnished with the up-to-date optical metrological and test equipment developed in the VNIIOFI, in the Vavilov and other Russian Institutes. These Institutes are capable to furnish the RACC with the necessary basic measuring and calibrating instruments and equipment.

The principal foundation of the RACC successful activity will be its accreditation by the U.S. National Institute of Standards and Technology (NIST), under the National Voluntary Laboratory Accreditation Program (NVLAP), and by the GOSSTANDART of the Russian Federation within the framework of its testing labs system.

The long time cooperation between NIST, on the one hand, and the VNIIOFI of the GOSSTANDART, on the other hand, are based on a number of successful comparisons of the U.S. and Russian National Radiometric Standards. This cooperation will be serving as the basis for establishing the above-mentioned Center.

A high scientific level of an optical metrology has been reached in Russia. In the VNIIOFI there has been created a complex of National Standards of candela, radiometric and spectroradiometric units of measurement within the wavelength range from vacuum UV to far IR, spectrophotometry and colorimetry.

In the Vavilov Institute has been established the unique spectrophotometric center. The measurement standards are based on the unique home-made developments.

Beginning in 1983, VNIIOFI performs cooperative works with a number of metrological centers all over the world, which are devoted to intercomparisons of national measurement standards for different units of measurement. The most intensive cooperation is carried out with the U.S., Germany, UK, Australia and France. The results obtained in the course of these comparisons have shown that the Russian optical measurement standards in terms of precision are on a par with the best foreign counterparts.

At the first stage, the RACC will be capable of providing the measurements of optical products for commercial purposes:

- characteristics of optical and opto-electronic systems;
- parameters of clinical instruments, including those utilizing laser radiation;
- opto-electronic products and technological lasers;
- optical parameters of night-vision and infrared image devices;
- optical parameters of aerospace radiometers;
- photometry and colorimetry;
- integral and spectral characteristics of radiation sources and detectors;
- optical properties of materials and filters;
- other kinds of measurements can be carried out according to the approved program.

The establishment of the Russian-American Center for certification of optical products and its accreditation will provide the solution of the following problems:

1. The testing of optical products and their evaluation according to the US, Russian and international standards.

2. The performing of high-precision calibrations of measuring instruments and systems in the

field of optical measurements as well as in the other fields of activities of metrological Institutes of the GOSSTANDART.

3. The establishment of the Service center on the RACC basis for maintenance and repairing of the measuring instruments.

4. The establishment of the Information center for organizing exhibitions, seminars and lectures of Russian scientists and experts in the field of optics and metrology.

The Russian-American Center for certification of optical products should promote a mutual trade by optical products and measuring instruments as well as a conversion of defense industries in Russia.

CHICAGO - OPENING REMARKS

to Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group (Northbrook, IL)

Mr. G. Thomas Castino, President and Chief Executive Officer, Underwriters Laboratories Inc.

Let me welcome the delegation of Committee of the Russian Federation for Standardization, Metrology, and Certification. I welcome you to the U.S., and, of course, to Underwriters Laboratories, Inc. in our largest facility and headquarters.

Please believe me when I tell you that we are truly and sincerely honored that you would select UL as one of your stops in the U.S.

I am glad to give you an opportunity to see our facilities, the most complete testing facilities in the U.S.

We entertained the other delegations from Russia in the past, particularly in the fire safety area. So, we are pleased to have you here today and we will learn more about other areas in addition to fire safety standards. Our relationships here at UL with Russian manufacturers are growing steadily. There are numerous factories in Russia producing goods that are bearing UL's marks for sale elsewhere in the world.

The goal of your visit, if I understand it right, is the development of mutual standards initiatives related to conformity assessment and quality evaluation.

This are critical to UL's future. As many of you from the U.S., there are here today, know, we are in the midst of numerous new horizons in business development.

These include ISO 9000 standards work, and adjunct or associated testing with our traditional safety services. Thus, now is the best time to be meeting on these subjects.

I urge in your deliberations over the next day or two to remind that UL's views on standards are the primary vehicle for the public safety value that one gains from the certification work for which they are used. Some in certification business are forgetting this. You and groups like yours must hold the line on safety through standards.

I wish you success in your meetings. Good luck and thank you.

Dr. Stanley I. Warshaw, Senior Policy Advisor for Standards and Technology, U.S. Department of Commerce

Thank you very much, Tom. We appreciate you permitting us to have this meeting here today.

This is the first time for the Russian delegates to be in Northbrook, and I am sure it will be quite interesting for them when they visit your laboratories tomorrow.

I am Stanley Warshaw, and I am a Co-Chairman of the Joint Standards Working Group with Dr. Serguei Bezverkhi.

As some of you know, that have attended the sessions earlier this week, we did have two days of sessions in New York City on Monday and Tuesday.

Today's efforts of the Standards Working Group, not unlike previous ones, are needed to exchange information on standards, testing and certification that will lead to cooperation between our countries.

Now I would like to introduce Dr. Serguei Bezverkhi and ask him to come to the podium. Dr. Bezverkhi is not only the president of GOSSTANDART, but he also has an extensive experience in the automotive field. And he is the former Director of the Central Motor Proving Ground in Moscow. Dr. Bezverkhi looks forward, particularly today, for discussions during the morning on automotive standards related matters.

Dr. Serguei F. Bezverkhi, President, Committee of the Russian Federation for Standardization, Metrology and Certification

Dear President of the UL Tom Castino, dear Dr. Stanley Warshaw. I would like to thank you very much for the opportunity to have the second part of our 4th Standards Working Group Meeting in Northbrook at UL.

The advantages of such meetings are not limited to possibility of discussing of mutual interest problems; it is of irreplaceable value to have an opportunity to actually see the laboratories and their equipment, to witness the testing of products.

I want to thank Dr. Warshaw with superlatives he used when introducing me. However, the truth is I indeed study automobiles for all my life. And of course as a person, involved in automobiles studying, I am deeply respect the people of this profession because I remember the statement made by our cosmonaut Mr. Grigori Beregovoi. He said that after the person, who tests, all that must remain is the truth and only the truth as pure as spring water.

This is why I am so grateful you inviting us not only to conduct the second part of 4th Meeting here, but also for the opportunity to become familiar with your laboratories.

Thank you.

CHICAGO - PRESENTATIONS

to Intergovernmental U.S.- Russian Business Development Committee's Standards Working Group

Presentation to the Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Russian Automotive Standards. Conformity Assessment Programs

Alexandr G. Pasko
Deputy Head
Department for Standardization and Certification
in Machine-Building
Committee of the Russian Federation
for Standardization, Metrology and Certification

1. Russian Certification System of Mechanical Transport Vehicles and Trailers

In the majority of European countries the automotive vehicles are certified on the basis of the 1958 Geneva Agreement, which specifies the usage of uniform requirements and test methods for automotive vehicles in member-countries and mutual recognition of their test results. Uniform requirements and test methods issued as UN EEC Regulations and appended to the above Agreements are developed for the working bodies of the Internal Transportation Committee within UN EEC by specialists of the Agreement's member-countries. More than 90 Regulations are valid now, which specify requirements to safety of structure and ecological indicators of care, motor bicycles and characteristics of their light devices, tires, etc.

The Russian Federation, as a successor to the former USSR in the 1958 Geneva Agreement, has officially stated about the application of 58 UN EEC Regulations in the country.

GOSSTANDART of Russia is an administrative body of the Russian Federation within UN EEC.

Participation in the 1958 Geneva Agreement made it possible to use principles, structure and norms of the Agreement in certification of automotive vehicles in Russia.

To implement the Russian Federation laws "On consumer rights protection" and "On certification of products and services" GOSSTANDART of Russia approved by its Resolution No.1 of April 1, 1992 the Certification System of mechanical transport vehicles and trailers (hereinafter referred to as the System) to become effective from May 1, 1992.

As to its procedure the System fully corresponds to the 1958 Geneva Agreement, approved by the European countries.

Automotive vehicles are certified according to UN EEC Regulations, which are officially stated as applicable within the Russian Federation. In the case of UN EEC Regulations are not available or domestic documents contain requirements not available in UN EEC Regulations, these documents are used for certification purposes. At the moment, there are 130 state standards and over 1000 norms of automotive industry in Russia.

Besides UN EEC Regulations, the list of technical requirements additionally includes such specific requirements, specified by domestic documents, as controllability and stability, ventilation and heating, inner noise, content noise, content of harmful substances in driver's cab and passenger compartment, forward visibility. Requirements are uniform for certification of internal and external automotive vehicles.

The System specifies the recognition procedure of conformity certificates issued by foreign bodies in other Systems.

A conformity certificate issued for component parts and equipment vehicles is, as a rule, valid for up to 3 years.

The Vehicle Type Approval Certificate, which is valid from 1 to 3 years, is issued for the combination of properties specified by national standards and UN EEC Regulations.

Automotive vehicles can be brought through the customs, sold and registered in the State Automotive Inspection Body only with the available Type Approval Certificate.

There are 12 certification bodies and 21 testing laboratories capable to certify the whole variety of automotive vehicles, spare parts and accessories, which were accredited to implement the System.

From beginning of March, 1995, the System covers not only general-purpose cars but also special-purpose ones; the next amendment concerns with the possibility to pass certification for small lots of cars not only by the rules of the System, but on the basis of a new currently approved document named "The regulation for technical condition control of automotive and trailer technic".

2. Technical Equivalency of U.S. standards with UN EEC Regulations and National standards of Russia

The introduction of the System made it necessary to conduct certification tests of American cars supplied to the Russian Federation.

As test results of mainly Ford company cars showed, American cars did not fully conform to UN EEC Regulations, adopted in the Russian Federation, and to national standards.

Within 1994, American and Russian specialists have conducted discussions concerning the Russian Vehicle Type Approval process as applied to vehicles designed and built in accordance with North American standards.

These discussions were attended by:

From the American side

- representatives of the American Automobile Manufacturers Association - AAMA along with representatives of member companies (General Motors Corporation, Ford Motor Company and Chrysler Corporation);
- representatives of the National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation.

From the Russian side

- representatives of the Russian Federation Committee for standardization, metrology and certification (GOSSTANDART of Russia);
- representatives of the Central Board of the State Automotive Inspection Body of the Ministry for Internal Affairs of Russia;
- representatives of the State Scientific Center for Motor Vehicles - NAMI;
- representatives of certification bodies;
- representatives of testing laboratories.

The goals of the meeting were:

1. To continue the technical discussions on equivalency of North American design standards with UN EEC Regulations and national standards applied within the Russian System of Motor Vehicles Certification.

2. To confirm that agreed technical equivalency will be applied to the Vehicle Type Approval valid for three years.

3. To verify the conditions and limitations for granting Temporary (valid for up to one year term) Vehicle Type Approvals after January 1995 and explore the possibilities of a separate "Low Volume" Type Approval.

4. To clarify the authority and responsibilities of different organizations in the Russian system of acceptance of vehicles in use.

As a result of these discussions, it was agreed as follows:

1. The fulfilled analysis of the requirements of the North American standards and those applied in the Russian certification system proved that there is a set of 17 FMVSS and SAE standards equivalent to UN EEC Regulations, namely:

North American Standards Deemed Equivalent to UN EEC Regulations

UN EEC Regulations	Subject	Equivalent Standard
R 3	Light reflectors	FMVSS 108
R 6	Turn signals (forward and real-auto yellow)	FMVSS 108
R 7	Parking lamps, clearance lights and stop light	FMVSS 108
R 10	Radio interference suppression	SAE J551
R 11	Door latches and hinges	FMVSS 206
R 12	Protection of the driver against the steering	FMVSS 203/ 204/208*
R 14	Seat belts installation	FMVSS 210
R 16	Seat belts assemblies	FMVSS 209
R 17	Seats and their anchorage	FMVSS 207
R 21	Interior fittings	FMVSS 201
R 23	Back-up lights	FMVSS 108
R 25	Head restraints	FMVSS 202
R 32	Rear impact	FMVSS 208
R 33	Head-on collision	FMVSS 208
R 34	Fire risks	FMVSS 301
R 37	Incandescent lamps	FMVSS 108
R 38	Reversion anti-fog lamps	SAE J
R 39	Speedometers and their installation	SAE J678
R 42	Protective devices (bumpers)	49 CFR, Part 581
R 43	Safety glazing	FMVSS 205
R 48	Installation of lighting and light signalling	FMVSS 108

* Vehicles meeting the crash performance requirements of FMVSS 208 are exempt from the requirements of FMVSS 203

2. It was also noted that there is a group of FMVSS and SAE standards, which establishes technical requirements close to those of the UN EEC Regulations, but there are differences in test procedures and rates.

North American standards, equivalency of which
can be specified after additional verification:

UN EEC Regulations	Analogous standard	Title
R13	FMVSS 105 (Hydraulic brakes) FMVSS 121 (air brakes)	Braking - FMVSS 105, 121 satisfy the brake performance but does not include a dynamic park brake test and ABS performance requirements.
R18	FMVSS 114	Protection against unauthorized use - FMVSS 114 may satisfy. Requires data on steering lock strength and durability.
R24	40 CFR Part 86	Diesel pollutants - U.S. 40 CFR Part 86 may satisfy, but requires some correlation testing to verify.
R28	SAE J377	Audible signal (horn) - Manufacturer's test records to be submitted. Russian experts to decide on necessity of additional tests.
R30 R54	FMVSS 109/110	Pneumatic tires - requires review of FMVSS 109/110 to determine equivalency.
R51	SAE J1470	Vehicle noise - U.S. Manufacturer's test data on SAE J1470 will be validated against Russian Central Proving Ground data. AAMA will submit to Russian specialists a copy of this standard for its expert review. For Type Approval, test data should be submitted. Russian experts will decide if additional tests are required.
R67	FMVSS 303	LPG equipment - requires review of corresponding FMVSS to verify equivalence.
R83	U.S. CFR Part 86	IC engine emissions - U.S. 40 CFR Part 86 may satisfy. Requires correlation testing to verify equivalence.

For obtaining Vehicle Approval Certificate, it is necessary to submit test records in accordance with the latter FMVSS or SAE standards. Records of tests conducted by the manufacturer may be used. Authorized Russian organizations will make decisions concerning either sufficiency of these test records or necessity of additional tests.

Russian specialists stated possibility of conduction of comparative tests of American vehicles of M1, M2, N1, N2 and N3 categories, which comply with FMVSS, in accordance with the UN EEC Regulations Nos. 13, 18, 24, 28, 49, 51 and 83. If the results of the tests satisfy the EEC requirement, then corresponding FMVSS shall be regarded as equivalent to EEC and they shall be transferred into the first group of standards.

3. There is a group of UN EEC Regulations whose requirements are not regulated or not fully regulated by FMVSS and SAE.

UN EEC Regulations - Nor Corresponding FMVSS or SAE

UN EEC Regulation	Subject and Comments
R 26	U.S. design standard FMVSS provides partial equivalency. No U.S. standard regulating the radius of curvature of extending parts. for the purpose of PTA, European approval pursuant to R26 is necessary.
R 35	No analogous U.S. standard. For PTA, European approval pursuant to R35 is necessary.
R 46	Rear-view mirrors: FMVSS "field of view" requirements may be accepted as equivalent; but requirement for "folding" mirrors has to be satisfied in accordance with UN EEC Regulation No. 46.

As concerns these standards, to receive Vehicle Type Approval Certificate valid for three years it is necessary to submit the "Communication concerning the approval of the type of a vehicle" pursuant to UN EEC Regulations or equivalent EEC Directive.

4. With regard to the various EEC requirements for vehicle lighting and light signalling equipment, there continues to be four areas of non-equivalency with FMVSS 108. These are head lamp passing beam, white front parking lamp, yellow rear turn signal, and rear license plate illuminating device.

All the other requirements for lightning and light-signaling devices are satisfied by conformity to FMVSS 108, including acceptance of the symbol "DOT" on lighting equipment and replacement parts instead of an "E" mark.

GOSSTANDART of Russia confirmed that the one-year Temporary Vehicle type Approval (TTA) would be available in 1995.

To receive TTA, it is necessary to submit records of tests according to FMVSS 105 (or FMVSS 121 for air braking systems), FMVSS 209, SAE 1470, FMVSS 108, CFR 40 86.091-11.

Authorized organizations of Russia will define their sufficiency or necessity of additional tests.

It is also necessary to conduct tests in accordance with GOST 27435 (inner noise) and GOST 12.1.005, RD 37.031.015 (concentration of harmful substances in the cab or passenger compartment). The validity of a TTA may be prolonged for up to 6 months.

5. To obtain "Type Approval" for 3 years taking into account road and climate conditions in Russia as well as sanitary and hygienic conditions of a driver's work, the list of requirements includes, besides UN EEC Regulations, such additional specific requirements specified by domestic documents as controllability and stability, ventilation and heating, inner noise, content of harmful substances in driver's cab and passenger compartment, forward visibility.

The above includes:

> GOST 28070-79 "Cars and trucks, buses. Forward visibility. General technical requirements. Test methods."
>
> GOST 27435-87 "Inner noise of Automotive vehicles. Admissible levels and test methods."
>
> GOST 12.1.005-88 "System of labor safety standards. General sanitary and hygienic requirements to working air."
>
> OST 37.001.487-89 "Controllability and stability of motor vehicles."
>
> OST 37.001.413-86 "System of labor safety standards. Driver's cab. Driver's working place. Arrangement of controls in trucks, buses, and trolley buses. Basic dimensions. Technical requirements."
>
> OST 37.001.471-88 "Controllability and stability of automotive vehicles. Test methods."
>
> RD 37.001.005-86 "Test procedure and assessment of automotive vehicles for controls stability."

The Russian party informed that in the nearest future a simplified procedure shall be introduced for acceptance of vehicles produced or imported in low volume.

"Low volume" shall be considered to be the following (approx.):

Vehicle category	Quantity, units per year
M1	150
M2, M3	50
N1	150
N2, N3	100

This procedure specified the individual verification of motor vehicle's conformity to safety requirements in use.

Envisaged also are specific procedural aspects related to the possible recognition of the role of NHTSA as an independent third party in certification of automotive vehicles.

As a result of negotiations, the draft Memorandum of Understandings was practically agreed upon and send to the American party to be finalized and signed.

Presentation to Intergovernmental U.S.-Russia Business Development Committee's Standard Working Group

Introduction to QS-9000 Chrysler, Ford, General Motors Quality System Requirements

R. Dan Reid
Supplier Development/Supplier Quality
North American Operations
General Motors Corporation

[Copies of 20 slides used follow]

INTRODUCTION TO QS-9000

CHRYSLER, FORD, GENERAL MOTORS
QUALITY SYSTEM REQUIREMENTS

HISTORY OF DEVELOPMENT

- 1963 - Mil-Q 9858A (US Military)
- 1965 - GM General Quality Standard (GQS)
- 1969 - AQAP Defense Standards (NATO)
- 1971 - ANSI N45-2 (USA) - Influenced by GM's GQS
- 1973 - DEF STANS (UK Ministry Defense)
- 1975 - CSA Z299 (Canada)
- 1975 - AS 1821/22/23 (Australia)
- 1979 - BS 5750 (1st common std. in UK)
- 1979 - ANSI/ASQC Z 1.15 (USA-Generic)
- 1981 - Ford Q101 (Global Automotive)
- 1983 - Chrysler Quality Assurance
- 1987 - GM TFE (North American Automotive)
- 1987 - ISO 9000 Series (90+ Countries)

NEED FOR STANDARDIZATION

- LACK OF STANDARD TERMINOLOGY
  - Multiple terms for same concept
  - Single terms with multiple meanings
- PROLIFERATION OF STANDARDS
  - Across countries
  - Across industries
  - Across companies, especially "Tier 1" suppliers
- DIFFERING DOCUMENTATION REQUIREMENTS
- DIFFERENT AUDITS

CHRYSLER, FORD, GENERAL MOTORS SUPPLIER QUALITY REQUIREMENTS TASK FORCE

- HISTORY
  - ASQC Automotive Division 1988 Summer Conference
  - OEM VPs sanction an OEM Task Force
  - Harmonize Supplier Quality Manuals, Formats
  - Concentrate on "tactical" projects vs "strategic"
  - Projects delivered Include:
    - Measurement Systems Analysis
    - Fundamental Statistical Process Control
    - Production Part Approval Process
    - Potential Failure Modes and Effects Analysis
    - Advanced Product Quality Planning/Control Plan

CHRYSLER, FORD, GM QUALITY SYSTEM REQUIREMENTS (QS-9000)

- INTEGRATES OEM SUPPLIER QUALITY STANDARDS
  - Chrysler's Supplier Quality Assurance
  - Ford's Q101
  - GM's Targets For Excellence
- ADOPTED BY TRUCK OEMs
  - Freightliner Corporation
  - PACCAR Inc.
  - Mack Trucks, Inc.
  - Navistar International
  - Volvo GM Heavy Trucks

GOAL

- The development of quality systems that provide for continuous improvement, emphasizing defect prevention and the reduction of variation and waste in the supply chain.

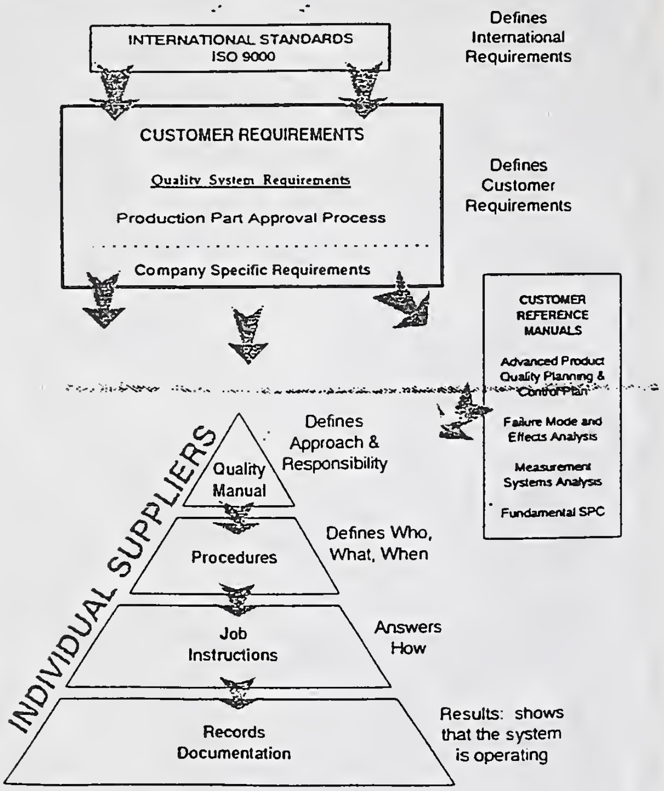
PURPOSE

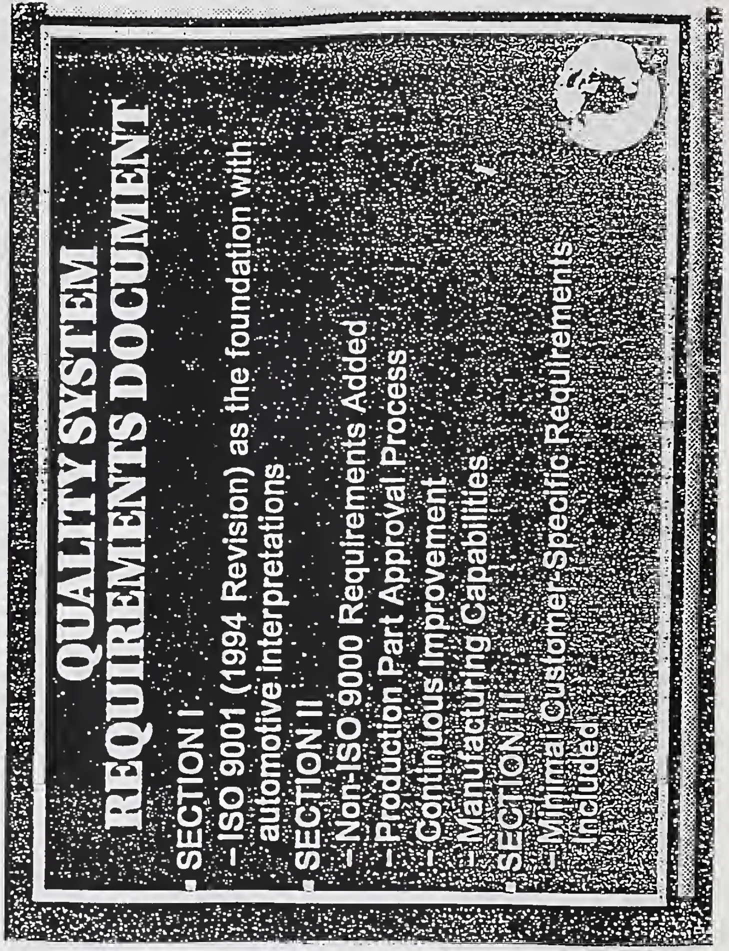
- Defines quality system expectations
- Applies to internal and external suppliers of production and service parts/materials
- To ensure customer satisfaction
- Begins with conformance to quality requirements
- Continues with reduction of variation and waste
- To benefit the final customer, the supply base, and all companies subscribing to these requirements.

WHAT IS A QUALITY SYSTEM?

- "THE ORGANIZATIONAL STRUCTURE, RESPONSIBILITIES, PROCEDURES, PROCESSES, AND RESOURCES FOR IMPLEMENTING QUALITY MANAGEMENT"
- QUALITY MANAGEMENT
  - "That aspect of the overall management function that determines and implements the quality policy"

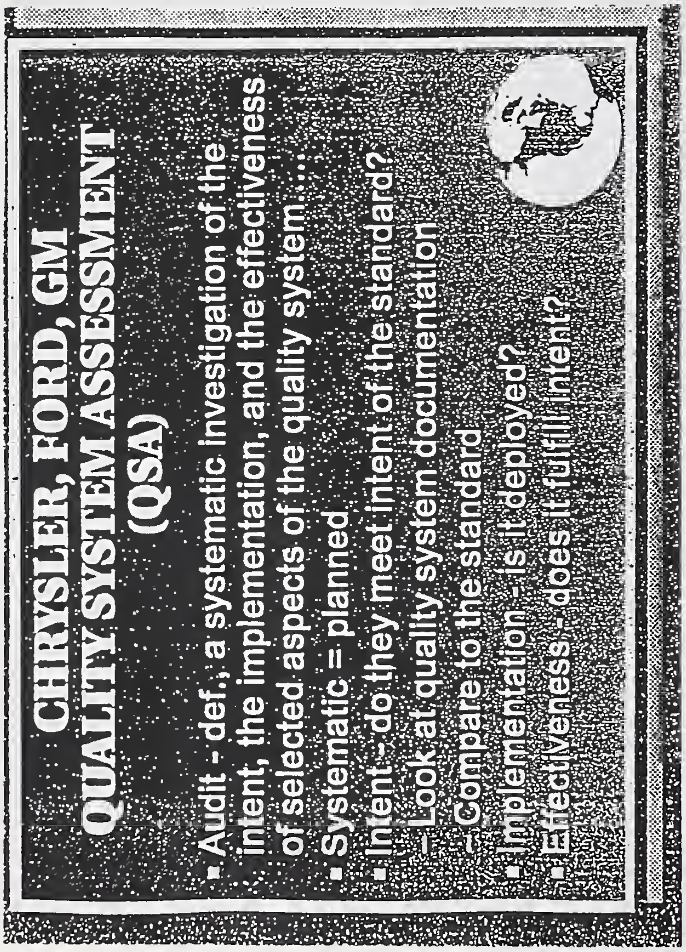
QUALITY SYSTEM DOCUMENTATION PROGRESSION


INTERNATIONAL STANDARDS
ISO 9000
Defines International Requirements
CUSTOMER REQUIREMENTS
Quality System Requirements
Production Part Approval Process
Company Specific Requirements
Defines Customer Requirements
CUSTOMER REFERENCE MANUALS
Advanced Product Quality Planning & Control Plan
Failure Mode and Effects Analysis
Measurement Systems Analysis
Fundamental SPC
INDIVIDUAL SUPPLIERS
Quality Manual
Defines Approach & Responsibility
Procedures
Defines Who, What, When
Job Instructions
Answers How
Records Documentation
Results: shows that the system is operating



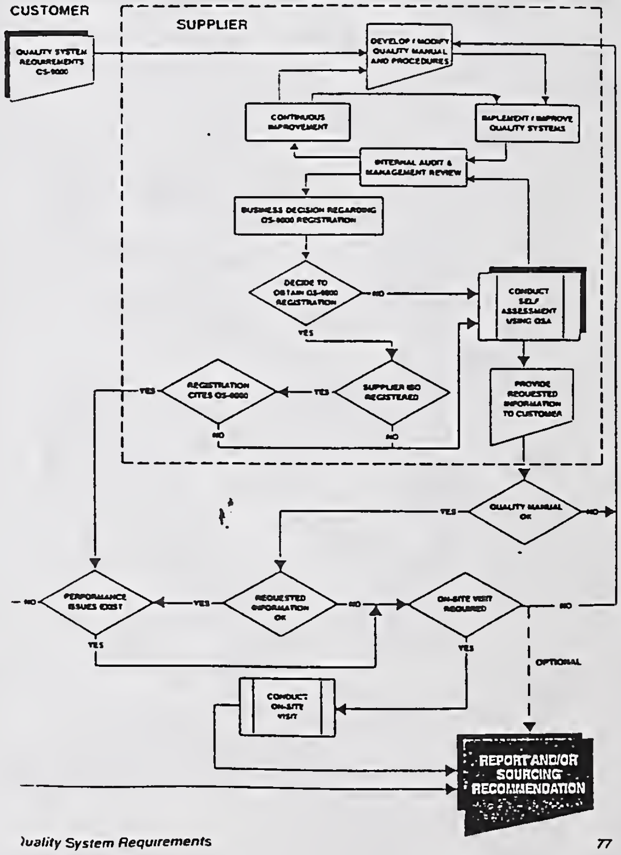
QUALITY SYSTEM REQUIREMENTS DOCUMENT

- SECTION I
  - ISO 9001 (1994 Revision) as the foundation with automotive interpretations
- SECTION II
  - Non-ISO 9000 Requirements Added
  - Production Part Approval Process
  - Continuous Improvement
  - Manufacturing Capabilities
- SECTION III
  - Minimal Customer-Specific Requirements Included



CHRYSLER, FORD, GM QUALITY SYSTEM ASSESSMENT (QSA)

- Audit - def., a systematic investigation of the intent, the implementation, and the effectiveness of selected aspects of the quality system.....
- Systematic = planned
- Intent - do they meet intent of the standard?
  - Look at quality system documentation
  - Compare to the standard
- Implementation - is it deployed?
- Effectiveness - does it fulfill intent?


CUSTOMER
SUPPLIER
QUALITY SYSTEM REQUIREMENTS QS-9000
DEVELOP / MODIFY QUALITY MANUAL AND PROCEDURES
CONTINUOUS IMPROVEMENT
IMPLEMENT / IMPROVE QUALITY SYSTEMS
INTERNAL AUDIT & MANAGEMENT REVIEW
BUSINESS DECISION REGARDING QS-9000 REGISTRATION
DECIDE TO OBTAIN QS-9000 REGISTRATION
NO
YES
CONDUCT SELF ASSESSMENT USING QSA
SUPPLIER ISO REGISTERED
REGISTRATION CITES QS-9000
YES
YES
NO
NO
PROVIDE REQUESTED INFORMATION TO CUSTOMER
QUALITY MANUAL OK
YES
NO
PERFORMANCE ISSUES EXIST
NO
YES
REQUESTED INFORMATION OK
YES
NO
ON-SITE VISIT REQUIRED
NO
YES
OPTIONAL
CONDUCT ON-SITE VISIT
REPORT AND/OR SOURCING RECOMMENDATION

CHRYSLER, FORD, GM QUALITY SYSTEM ASSESSMENTS (QSA)

- CAN BE USED FOR:
  - Self-assessment (first party)
  - Assessment by customer (second party)
  - Independent assessment (third party)
- TWO OUTPUT OPTIONS
  - Unscored (Pass/Fail) vs. Variable Scored
- NO AUTOMATIC RECIPROCAL RECOGNITION PLANNED
- THIRD PARTY REGISTRATION TO QS-9000 WILL BE ACCEPTED, AND WILL BE REQUIRED BY SOME CUSTOMERS
- SECOND PARTY QUALITY SYSTEM APPROVAL WILL NOT RESULT IN REGISTRATION/CERTIFICATION

QUALITY SYSTEM ASSESSMENT (QSA)

- THIRD PARTY REGISTRATION/CERTIFICATION
  - National Accreditation Bodies
    - NACCB (UK)
    - RvC (Netherlands)
    - RAB (USA)
    - SCC (Canada)
    - Others
  - Registration/Certification Bodies
    - Underwriters Laboratory
    - British Standards Institute
    - Lloyds Registry
    - Others
  - Company (Supplier)
  - OEMS

CODE OF PRACTICE

- FOR QUALITY SYSTEMS REGISTRARS MAKING ASSESSMENTS TO THE QS-9000
  - To address variation in registrar practices
    - Cover all quality system elements
    - Evaluate effectiveness of system elements
    - Surveillance frequency requirements defined
    - Supplier report requirements defined
    - Registrar training requirements defined
  - Supplier to include in contract with registrar
  - Accreditation body to control its use by registrars

BENEFITS

- SUPPLIERS
  - COMMONIZED QUALITY SYSTEMS
    - REDUCE COST
    - IMPROVE QUALITY
- CHRYSLER, FORD, GENERAL MOTORS
  - REDUCE COST
  - IMPROVE QUALITY

QS-9000 ROLL-OUT

- AIAG - (810) 358-3003
  - ADMINISTRATIVE SUPPORT
  - DISTRIBUTION OF MANUALS
  - TRAINING REGISTRATION
- TRAINING
  - OEM INTERNAL
  - SUPPLIER OPEN ENROLLMENT
  - REGISTRARS

ACCREDITATION BODIES

- NATIONAL ACCREDITATION COUNCIL FOR CERTIFICATION BODIES (NACCB)
  Audley House
  13 Palace Street Tel. # 071-233-7111
  London, UK SW1 E5HS Fax # 071-233-5115
- DUTCH COUNCIL FOR CERTIFICATION (RvC)
  Stationsweg 13F
  NL - 3972 KA Driebergen Tel. # 31-3438-12604
  The Netherlands Fax # 31-3438-18554
- REGISTRAR ACCREDITATION BOARD (RAB)
  611 East Wisconsin Ave.
  P. O. Box 3005 Tel. # 414-272-8575
  Milwaukee, WI 53201-3005 Fax # 414-765-8661

BIG THREE REQUIREMENTS

- CHRYSLER
  - SELF ASSESSMENT - JUNE, 1995
  - THIRD PARTY REGISTRATION - JULY, 1997
- FORD
  - SELF ASSESSMENT - JUNE, 1995
  - THIRD PARTY REGISTRATION - UNDER EVALUATION
- GENERAL MOTORS
  - THIRD PARTY REGISTRATION REQUIRED
    - JANUARY, 1996 - NEW SUPPLIERS
    - DECEMBER, 1997 - ALL SUPPLIERS

WHAT IS QS-9000 ?

- QS-9000 COMMONIZES THE QUALITY REQUIREMENTS OF THE BIG THREE.
- ALIGNMENT WITH ISO-9001.
- QS-9000 APPLIES TO ALL CHRYSLER, FORD, AND GENERAL MOTORS SUPPLIERS.

Presentation to Intergovernmental U.S.-Russia Business Development Committee's Standard Working Group

Electrical and Fire Safety Standards and Conformity Assessment Program

Dr. Viktor N. Smirnov
Deputy Head
Department for Technical Policy in Certification
Committee of the Russian Federation
for Standardization, Metrology and Certification

The basic principles of standardization in this area are as follows:

- existence of legislative foundation;
- harmonization of national and international standards;
- protection of people and properties from a damage as a result of fire.

The legal foundation of fire safety standards are the following laws: "On standardization" and "On Fire Safety". In accordance with these laws, the requirements of safety standards, including fire safety of electrical products, are mandatory and must be fulfilled by designers, manufacturers, sellers and users. Supervision services of GOSSTANDART of Russia and State Fire Defense Service are in charge of following correct implementation of the standards.

The basic state standard, determining fire safety, is the standard GOST 12.1.004-91 "Labor safety system of standards. Fire safety. General requirements". This standard contains test and evaluation methods of determining of probability of fire.

Since household electrical appliances present the greatest source of fire danger, GOSSTANDART passed the standard GOST 14087-88 "Household electrical appliances. General technical requirements". Among other requirements, this standard determined a level of fire probability and a method of this probability calculation.

Requirements to fire safety and methods of probability calculation are established in more than 50 standards on specific products. More specific criteria of fireproof resistance of household electrical appliances are specified by the standard GOST 27570.0-87 "safety of household and similar electrical appliances. General requirements and test methods". This standard contains a chapter in which there are requirements and methods of electrical appliances testing: they are tested for heat and fire resistance according to methods which are accepted in international practice. Fire resistance of appliances parts, made of insulating materials, is tested by wire heated up to 850 degrees Centigrade temperature, or by needle flame of a gas burner. This standard is similar to the international standard IEC 335-1-76.

Certification of electrical appliances and equipment for fire safety is performed on legislative foundation. In accordance with Russian laws, certification of following electrical products on safety requirements is mandatory:

- refrigeration units and thermal containers for food-stuff storage and freezing;
- food cooking utensils;
- sanitary, hygienic and microclimate appliances;
- household tools and farm implements;
- household radio, and TV appliances;
- movable electrical power stations;
- cables, wires, switches, connectors, etc.

Mandatory certification of electrical equipment is carried out by the rules of "Electrical equipment certification system for safety standards compliance". This certification system is a part of certification system managed by GOSSTANDART of Russia, namely certification system GOST R. Certification for compliance with safety requirements is carried out in accordance with requirements of international standards as well as national standards harmonized with international ones.

The structure of the system is as follows. The central body of the system is the GOSSTANDART's Department for information technology standardization and certification. Among its purposes are organizing of certification rules and procedures development, and creating the certification bodies and testing labs structure.

At the present time, there are about 50 certification bodies and 150 testing labs. Currently a work is under way to accredit testing labs in the international certification system: first 6 testing labs have been accredited.

Certification bodies hand out compliance certificates on all facets of safety requirements including a fire safety. However, the law "On fire safety" prescribes to issue a special fire safety certificate that would be an addendum to a common fire safety certificate.

Presentation to Intergovernmental U.S.-Russia Business Development Committee's Standard Working Group

Electrical/Fire Safety Standards/Conformity Assessment In the U.S.

Lee Dosedlo, P.E.
Chief Engineer - Engineering
Underwriters Laboratories Inc.

I would like to welcome you to Underwriters Laboratories and to today's session on Electrical and Fire Safety Standards and Conformity Assessment in the United States.

The UL Mark is the American Mark for Safety. It's America's national symbol of product safety, recognized around the world as the Mark of Underwriters Laboratories. Completely self-supporting and not-for-profit, UL is not affiliated with government or industry, has no stockholders, and holds no financial interest in any company submitting products for testing and certification. UL is more than just a testing laboratory. UL is a resource, working with industry, government, insurers, educators and the general public as part of the United States safety system.

UL HISTORY

UL is more than 100 years old, founded in 1894 by an electrical engineer named William Henry Merrill. He was hired by the Chicago insurance board to investigate fires caused by the extensive use of the new incandescent light bulb at the 1893 Columbian Exposition in Chicago. His methods and reports to the insurance companies attracted the attention of industry, since his work would also be valuable to them. Mr. Merrill believed that to maintain credibility and integrity, the organization must be independent, self-supporting and operate in the public's interest.

UL's mission is advancing public safety, which we accomplish in a number of ways. First, UL offers high quality safety testing and product certification programs, including a follow-up service program, that help manufacturers bring safer products to international markets. Second, UL develops safety standards for products intended for use in the United States and works with other safety certification organizations around the world to establish internationally accepted product safety requirements. Third, UL promotes quality by registering companies to the internationally recognized IS" 9000 quality assurance standards. Fourth, UL offers adjunct testing services - energy efficiency testing, sanitation and environmental health testing, that manufacturers need for a complete product evaluation.

U.S. SAFETY SYSTEM

In the United States, the safety system involves various organizations that have specific objectives: (1) public officials, Authorities Having Jurisdiction, and consumers are concerned with life safety and preserving property; (2) the insurance industry is primarily concerned with the potential loss of property; and (3) manufacturers need to deliver products that meet safety requirements.

The U.S. safety system is based on the interaction of three elements: (1) Installation Codes and Product Standards, (2) Enforcement of Codes and (3) Certification of Products. Fire Codes are published by the National fire safety Association which include the National Electrical Code. Building Codes are published by three Model Building Code organizations. Product safety standards are developed by UL or other standards organizations. UL participates in the code development process to ensure that UL product safety standards and UL Listed products are compatible with the installation codes and to gain a better understanding of the safety concerns of code authorities.

Enforcement of the building and fire codes is the responsibility of authorities having jurisdiction. UL works closely with authorities to assist them in determining whether products meet appropriate safety requirements and are properly installed.

As part of the U.S. safety system, UL develops product safety standards, investigates and Lists products so that those responsible for enforcement of codes understand how UL has evaluated the product when they inspect the final installation.

It is not sufficient to test a product to a safety standard without consideration for how the product is to be installed. An understanding of the Building Codes and enforcement process is essential to achieve the goal of improved safety to life and property. Each element: Codes and Standards, Enforcement, and Certification of Products, must interact for the safety system to function effectively.

TESTING LABORATORY VS. PRODUCT CERTIFIER

It is important to recognize the significant difference between a testing laboratory and a product certifier. A testing laboratory conducts specific tests on products to determine compliance with the test standard. Accreditation of a testing laboratory is directed toward and limited to assessing testing competence. The adequacy of personnel, laboratory facilities and equipment are determined. Testing competence is considered as only one of several elements of the U.S. product safety certification system.

Product certification is the action of certifying, generally by a registered mark, that a product is in conformance with specific standards. Since product certification is directed to product conformance and not just testing compliance, it is also concerned with conflict of interests, independence, use of model codes and standards, a production inspection program, contractual provisions for testing and follow-up and provisions for the removal of the certifier's mark from noncomplying products. Laboratory testing does not include supervision of the use of a certification mark by which authorities having jurisdiction and the public can identify products produced in accordance with a certification program.

UL is one of the few organizations in the United States that operates a product safety certification system. However, there are dozens of testing laboratories that conduct commercial testing of products. The tests conducted by commercial testing laboratories are usually on a lot-by-lot, project-by-project, one-of-a-kind or similar basis. That is, one-time testing, as opposed to UL's continuous product testing of production line products upon which the public depends for product safety.

FACILITIES AND STAFF

UL employs more than 4,000 engineers, quality auditors, field representatives, standards developers and other staff world-wide. UL's acknowledged expertise, combined with state of the art test equipment in more than 1.5 million square feet of laboratory space, allows UL to provide consistent product certification and quality assessment services to manufacturers around the world.

In the U.S.A., UL has five full service testing laboratories, located in Northbrook, Illinois; Melville, New York; Santa Clara, California; Research Triangle Park, North Carolina; and Camas, Washington. UL also has engineers stationed in many major cities. Additionally, hundreds of field representatives countercheck products having the UL Mark in production throughout the United States.

Internationally, UL has five subsidiaries and branches in Hong Kong, Japan, Taiwan, Singapore and Korea. UL has engineering staff in Europe, Canada and Mexico. UL's product inspection representatives visit manufacturing facilities in 83 countries including Russia.

UL is capable of conducting a full spectrum of electrical, fire, casualty, chemical hazard and marine environment testing. UL's electrical testing laboratories provide a wide variety of different types of power to accommodate different voltages and current combinations. Portable frequency generators provide the capability of electrical frequencies common in Europe and elsewhere. UL's fire testing laboratory is capable of evaluating walls, floors and roof-ceiling assemblies for fire resistance ratings; surface flammability and smoke development characteristics of materials, and fire resistance testing of doors, windows, and dampers as well as other building components.

Specially designed test chambers allow UL to accelerate the aging of materials and to simulate field conditions, such as rain, high humidity and extreme heat or cold. UL's hazardous locations laboratory is capable of evaluating products designed to operate in atmospheres that contain highly unstable or flammable gas or vapors. UL's vibration test equipment can simulate conditions such as a boat in a rough sea or the floor of a factory operating a drill press.

SAFETY TESTING

Each year, UL conducts approximately 76,000 product investigations, on over 14,000 different types of products. We test many types of products, including building materials, construction systems, mechanical products, electrical and electronic equipment, fire safety equipment, burglary protection systems and equipment and marine products.

For products and materials that have a potential safety risk, such as electrical products and building materials, Authorities Having Jurisdiction and consumers require a degree of confidence that the product complies with safety standards. UL believes that the highest level of confidence is established when the evaluation process takes place before the product enters the marketplace, and is conducted by an independent third-party testing and certification organization. That is UL's responsibility in the US safety system.

UL's focus is on product safety. When UL investigates a product, we evaluate the product's construction and conduct many tests that determine shock, fire and casualty hazards. UL needs to know if the product construction is appropriate for normal use, if it is sufficiently flame resistant to avoid adding fuel to a fire, if it contains potentially hazardous chemicals and if the product short-circuits or overheats, to determine if it "fails" safely. UL's primary concern is whether the product is safe to use as intended and whether it poses a potential hazard if it malfunctions or is misused in a reasonably foreseeable manner. UL's investigation broadens to include performance when reliability is critical to life safety. Examples of these types of products include smoke detectors, fire sprinklers, bullet-resistant glass and nurse call systems.

ADJUNCT TESTING SERVICES

UL's testing service has expanded to include additional types of product performance evaluations that manufacturers need to bring their products to market. For example, UL evaluates products to national and international requirements for electromagnetic interference. UL tests potable drinking water systems and commercial cooking equipment to national sanitation standards. We measure the energy efficiency of lighting products that must conform to requirements in the U.S. Energy Act. UL also has services that evaluate the capabilities of companies that install and repair UL Listed burglar alarms and maintain uninterruptible power supplies.

FOLLOW-UP SERVICE

UL's Follow-Up Service program verifies that products manufactured with the UL Mark continue to meet UL's requirements. Once a manufacturer demonstrates that the product meets UL requirements, the manufacturer receives authorization to apply the UL Mark to products that continue to comply with UL requirements. UL controls the use of the UL Mark by requiring manufacturers to contract for UL's Follow-Up Service. The manufacturer agrees to apply UL

Marks only to products that comply with UL requirements, as specified in a UL Report which describes the product. The manufacturer agrees to allow UL field representatives to make a minimum number of unannounced inspections at each manufacturing facility producing the product to verify that products with the UL Mark continue to comply with the requirements.

If UL's field representative discovers a problem with the product, UL has the authority to take a number of actions appropriate to the situation and level of potential hazard, from identifying corrective action to stopping production to issuing a public notice. The number and timing of visits is based primarily on the type of product, the quantity produced and the manufacturer's history in UL's program. For example, manufacturers who produce hundreds of thousands of units per year may have UL field representatives in their manufacturing facilities several times a week or even every day. Manufacturers of custom, one-of-a kind type products, such as a mobile home, may have the UL field representative on-site every time a unit is produced.

In most industries, the minimum number of visits is four times each year. An initial production visit is conducted to verify that the factory has the required equipment to produce the product that complies with UL's requirements.

STANDARDS

In order to conduct tests, specifications and requirements are needed. A major part of UL's safety business is developing product safety standards that establish requirements for products. UL standards typically address product performance as it relates to safety; product construction; product ratings; product markings that warn of risks or provide information about ratings; and instructions for installation, operation, maintenance, storage and safe use.

UL develops and maintains approximately 700 Standards for Safety using a process that allows input by everyone with an interest in product safety including manufacturers, architects and specifiers, contractors, Authorities Having Jurisdiction, consumers, insurers and others. The vast majority of UL Standards -nearly 500 - are recognized by the American National Standards Institute (ANSI) as American National Standards. In this process, the standards undergo intense review and comment.

This consensus process for developing standards is significant because it means the standards address manufacturer's concerns about producibility. UL's standards do not specify the product design, however they identify the levels of protection the product must provide. The consensus process also means the standards address local government agencies concerns about compatibility with codes, because UL requirements are consistent with installation requirements in the model building and fire codes.

UL's standards also address insurance companies reduce premiums for prevention. In the United States, insurance company concerns for effective loss customers that use UL Listed smoke detectors and fire sprinklers, burglar alarms and UL rated fire stop building materials.

Presentation to Intergovernmental U.S.-Russia Business Development Committee's Standard Working Group

ISO 9000 Practices in Russia

Dr. Viktor N. Smirnov
Deputy Head
Department for Technical Policy in Certification
Committee of the Russian Federation
for Standardization, Metrology and Certification

Let me briefly dwell on the activities of ISO 9000 practice in Russia. We can not brag of numbers of registered systems being anyway near the large numbers that we are just shown. The main reasons for that are difficult economic conditions and a state, in which most of Russian branches of industries find themselves at the moment.

Nevertheless, we have done great attention to the work in registering companies under ISO 9000. Documented rules and procedures on quality systems accreditation have been passed in 1992; they were passed at the same time with other documents on products and services certification to comply both with an international practice and with the Russian law "On consumer protection rights". It is only natural, that these rules and procedures are mainly the kind, that required by international standards, by ISO/IEC guides and by EN 29000.

It would be fare to note the following: Russia has a great experience in providing standards for quality assurance of products and services. Even back in the 1970s, our systems for quality assurance and quality control were widely spread, including "fault free labor" systems. Prevailing economic circumstances would not permit these works to develop in a large scale. But we did have in Russia a system of standards for products developing and their production organization especially for high-tech and electronic machine-building. Russian experts were actively participated in the preparation of ISO 9000 standards, and even now we are still actively working in ISO TC 176. In 1988 were passed three Russian state standards, which are Russian analogous of ISO 9001, 9002 and 9003. The rest of ISO standards were accepted as methodical recommendations. Currently we are reviewing rules and procedures for quality systems accreditation taking into consideration both the new version of ISO 9000 and EN 45000.

Let me briefly review the structure of our registration system.

GOSSTANDART of Russia:

- provides basic management for implementation of ISO 9000 standards;
- registers appropriate state standards and methodical rules;

- produces general management in the quality systems registration activity;
- conducts the state registries of accredited quality systems, of bodies registered for quality systems accreditation, and of experts performing quality system accreditation;
- provides a supervision of objectivity and impartiality of quality systems accreditation;
- conducts international cooperation in this area.

At the present time, GOSSTANDART has registered 6 systems for quality accreditation: they are located in Moscow, St. Petersburg, Ekaterinburg, and in Chelyabinsk. These registered bodies provide quality systems accreditation, they issue certificates and follow up accredited companies. GOSSTANDART's research institutes provide methodical assistance for companies how to assure compliance with ISO 9000 standards.

APPENDIX A - Terminology

There are some differences with the use of words in the area of conformity assessment. The words accreditation, certification and registration are sometimes used interchangeably, although international agreements exist in some regions of the world.

The US and Canada seem to have settled on:

accreditation	the outcome of peer assessment of laboratories, product certification bodies and bodies which register manufacturer's quality systems.
certification	restricted to activities of product certification bodies such as marking products for safety or performance.
registration	result of evaluating an organization's quality management system for compliance with ISO 9000.

European approach is:

accreditation	the outcome of peer assessment of laboratories and certification bodies.
certification	acts of bodies engaged in either or both product certification and evaluating quality systems.
registration	the term is not used.

In Australia and New Zealand the term registration has been used for many years for giving recognition to laboratories but is slowly being replaced by "accreditation" and the European usage adopted.

ISO Guide 2 gives some agreed definitions but these are not universally applied.

Source: Proceedings of the International Laboratory Accreditation Conference, Hong Kong, 1994.

APPENDIX B - GOSSTANDART OF RUSSIA

System of Motor Vehicles and Trailers Certification

[Certification System reporduced on following 58 pages]

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION.

BASIC PRINCIPLES

Approved by Resolution No. 7 of March 31, 1993 of the Gosstandard of Russia instead of edition approved by Resolution No.1 of April 1, 1992 of the Gosstandard of Russia.

INTRODUCTION

The present System of Motor Vehicles and Trailers Certification (hereinafter referred to as 'System') establishes basic principles, structure and rules for certification of automobiles, buses, trolley-buses, electromobiles, motorcycles, mopeds and trailers (hereinafter referred to as 'motor vehicles'), as well as their parts and equipment, in the territory of the Russian Federation,

1. DEFINITIONS

For the purposes of present System, the following definitions and terms are used:

'vehicle type' means a group of vehicles characterized by totality of common design features, fixed in the technical descriptions;

'parts and equipment' means vehicle structural elements (units, assemblies and parts) provided with regulatory documents containing requirements for ensuring safety of citizen's life, health and property and environment protection;

'spare parts' means vehicle structural elements (units, assemblies and parts) supplied to the market and(or) to organizations engaged in repairing and servicing;

'accessories' means additional devices intended for installation on the vehicle in order to improve its performance but not intended for mandatory installation on all the vehicles of one type;

'certification of conformity' means an action taken by a third party in order to prove that necessary confidence is guaranteed that duly identified product, process or service conforms to a certain standard or another regulatory document;

'approval of the type of a vehicle' means the same as 'certification of conformity' when the product is certified for conformity to the Regulations of the Economic Comission for Europe of the United Nations Organization (hereinafter referred to as 'UN ECE Regulations');

'mandatory certification' means certification introduced as a necessary condition for realisation of products (services) in the territory of the Russian Federation in accordance with their direct assignment;

'voluntary certification' means certification conducted on voluntary basis and on the will of the manufzcturer (producer), seller (supplier) or consumer of the product (service);

'regulatory, or standardizing, document' means a standard - a state standard, medical quotes and rules, and other documents, including the UN ECE Regulations, which, according to Russian legislation, determine mandatory requirements concerning the quality of products (services), as well as methods of control of compliance with these requirements;

'system of certification' means a system having its own rules, procedures and management for conduction of certification;

'accreditation' means an official recognition of power to be engaged in any activity connected with certification;

'scheme of certification' means the composition and order of actions of the Parties taken in the course of certification;

'product subject to certification' means a productthat has to undergo the process of certification;

'certified product' means product that has passed certification;

'quality control system' means the totality of organizational structure, responsibilities, procedures, processes and resources ensuring general monitoring of the product quality;

'certification of quality control systems' means checking, to the satisfaction of an accredited Department for certification, that the quality control system of enterprise concerned meets the requirements of a state or international standard for quality control systems;

'production certification (production conditions check)' means checking and evaluation of the manufacture of the product subject to certification in order to obtain necessary confidence in respect of stability of product's characterictics which are inspected in the course of certification tests;

'inspection control' means checking of the activities of accredited Departments for certification and Test laboratories, as well as checking of certified products and production conditions in order to determine whether the validity of the documents formerly granted (Approval certificates, Vehicle Type Approvals) can be preserved;

'Central Department for certification' means organization that carries out guidance of the System;

'Department for certification' means organization engaged in certification of certain kind of product, process or service;

'Department for production certification' means an organization conducting certification of production conditions;

'Department for quality control systems certification' means an organization engaged in certificatin of enterprises' quality control systems;

'Administrative department' means an organization engaged in certification in the framework of 1958 Geneva Agreement on behalf of the Russian Federation;

'Technical service' means a test laboratory (centre) authorized to conduct certification tests in the framework of 1958 Geneva Agreement;

'accreditation of a Test laboratory (centre)' means an official recognition of the power of the Test laboratory (centre) to conduct tests of certain kinds of products or concrete types of tests;

'accreditation of a Department for certification (Department for production certification, Department for quality control systems certification)' means official recognition of the organization's right and power to conduct certification of certain kinds of product (certification of production, certification of quality control systems);

'consumer' means an organization, enterprise, institution, or a person, that uses, buys, orders, or has intention to buy or order product for its own purposes;

'supplier' means an enterprise, organization, institution or a person supplying product according to established order;

'manufacturer' means an enterprise, organization, institution or a person manufacturing product for marketing;

'applicant' means a juridical or physical person presenting application for certification of certain product;

'auditing expert' means a person attested for conduction of one or more types of services in the field of certification of product, quality control systems, attestation (checking conditions) of production or accreditation of Test laboratories;

'Approval certificate' means a document issued in accordance with the rules of the System, indicating that necessary confidence is guaranteed that duly identified product, process or service complies with a certain standars or another regulatory document;

'Communication concerning approval of the type of a vehicle' means the same as 'Approval certificate' when certification of the product is conducted for compliance with the UN ECE Regulations;

'Vehicle Type Approval' means a document that confirms, in accordance with established procedure, that necessary confidence is guaranteed that duly identified vehicle complies with the full list of technical requirements presented for the given type of vehicle;

'communication' means a document that is distributed by the supplier (iporter) to the buyer of every vehicle and which confirms the availability of Vehicle Type Approval for vehicles manufactured or imported into the territory of the Russian Federation; *)

'vehicle passport' means a document given by home manufacturer to the consumer (or trading organization) of the vehicles and confirming the availability of Vehicle Type Approval for the manufactured vehicle;

'enterprise quality control system certificate' means a document granted in accordance with the rules of GOST R System of Certification which confirms that the quality control system of the enterprise concerned complies with the requirements of a state or international standard for quality control systems;

'Mark of conformity' means a mark protected acording to the established order, which is affixed on the product (directly, or on the packing, or accompanying documentation) or by which documentation concerning service is marked, in order to inform that they have passed certification and comply with requirements of one or several regulatory documents.

2. PURPOSES AND CONDITIONS OF CERTIFICATION

Mandatory certification of vehicles, their parts and equipment is conducted with the purpose to permit realization of such products in the territory of the Russian Federation only if they comply with established requirements concerning safety of citizens' life, health and property and environment protection.

Voluntary certification with regard to other requirements may be conducted as an independent and impartial evaluation of consumers properties of the products.

The System takes into account the obligations arising from the participance of the Russian Federation in the Agreemenr concerning adoption of uniform provisions of approval and reciprocal recognition of approval of motor vehicles equipment and parts, signed on March 20, 1958 in Geneva, as well as 1968 Vienna Convention on road traffic.

---

*) Comminication is not necessary if all relevant data are fixed in the vehicle passport.

The System is opened for other states, organizations and enterprises irrespective of the form of ownership, as well as for entrepreneurs and persons interested in certification.

3. SCOPE

The System is applied in accordance with separate Procedures for the certification of following objects of certification:

- vehicles, their parts and equipment, manufactured by home enterprises (including those with joint stock), by branches of foreign companies acting in the territory of the Russian Federation, as well as imported into this territory (by lots of more than 3 pieces of one type simultaneously) from abroad with the aim of marketing and subsequent constant use on the common road network;
- spare parts and accessoires for vehicles.

The System may be complemented by Procedures for other objects of certification in this field (for example, vehicles delivered for repair, or manufactured by individuals, technical service and maintenance, etc.).

4. STRUCTURE AND PARTICIPANTS OF THE SYSTEM

4.1. The organization structure of the System is formed of the following participants of the System:

- Central Department for certification;
- Departments for certification;
- Test laboratories (centres);
- Council for certification.

4.2. Management of the System is conducted by the Central Department for certification.

4.3. Departments for certification and Test laboratories must be accredited according to the procedure established by the Gosstandard of Russia and included into the State Register of GOST R System of Certification.

Test laboratories may be accredited in the capacity of Departments for certification of separate kinds of products or for separate types of tests.

4.4. The Council for certification is a consultative organ, and it is formed by the Central Department for certification on the base of voluntary participation of representatives of : the Ministry of Transport, the Committee for Machine-building of Russia, the Ministry of Internal Affairs, The Ministry of Nature, societies of vehicle consumers, test laboratories, manufacturers of products subject to certification, trade unions and health services, institutes and territorial bodies of the Gosstandard of Russia and other organizations interested in the improvement and developement of the System.

The Council for certification can not interfere in the activities of the other participants of the System.

The outline of the System is shown in Annex 1.

5. FUNCTIONS, RIGHTS AND DUTIES OF THE PARTICIPANTS OF THE SYSTEM

5.1. Functions, rights and duties of the Central Department for certification, Department for certification and Test laboratory are determined by corresponding Statutes, which are approved by the Gosstandard of Russia.

5.2. Functions, rights and duties of the Council for certification are determined by corresponding Statutes, which is approved by the Central Department for certification.

Main functions of the participants of the System are given in Annex 2.

6. BASIC RULES OF THE SYSTEM

6.1. Mandatory certification of products is conducted according to requirements concerning safety of citizens' life, health and property and environment protection which are established in regulatory documents, including UN ECE Regulations application of which by the Russian Fedreation was notified to the Secretary General of UN, by the means of granting Certificates of conformity wuth regard to separate characteristics or Vehicle Type Approval with regard to totality of properties. Certification with regard to the UN ECE Regulations is preferable.

In the case if UN ECE Regulations are not available, or if national regulatory documents contain requirements which are not established by the UN ECE Regulations, certification is conducted according to national regulatory documents. In such cases, decision is adopted by the department for certification.

The lists of products subject to mandatory certification and thechnical requirements of regulatory documents are determined and adopted by the Gosstandard of Russia on the basis of suggestions of the Central Department for certification, Departments for certification of certain types of products, and, if necessary, are periodically revised.

The Gosstandard of Russia brings the adopted lists to the notice of Departments for certification and test laboratories, and, by the means of mass information, informs interested organizations and enterprises that these lists are put into force.

6.2. Procedures of certification of the objects of certification are approved by the Gosstandard of Russia.

6.3. Certification of product, including determination of certification scheme, is carried out by Departments for certification, registered in accordance with procedure established by the Gosstandard of Russia; or by Administrative Departments.

6.4. Accreditation of Departments for certification and of Test laboratories is conducted in accordance with procedure established by the GOST R System of Certification.

The accreditation of Departments for certification may be performed with the participation of representatives of the Ministry of Internal Affairs, Ministry of Transport and Ministry of Nature in accordance with their competence, as well as representatives of the Union of independent test laboratories, territorial bodies and institutes of the Gosstandard of Russia, and other organizations at the discretion of the Gosstandard of Russia.

6.5. Quality control systems certification is performed by the Department for quality control systems certification for verifying the compliance with the requirements of GOST 40.9001 (ISO 9001), GOST 40.9002 (ISO 9002), GOST 40.9003 (ISO 9003); attestation of production is performed by the Department for production certification; and the checking of production conditions is performed by the Department for certification (in accordance with methods established by separate Procedures for different objects of certification).

The Deapartment for certification may perform the functions of Department for quakity control systems certification or Department for production certification provided that it is accredited in accordance with procedures established by the Gosstandard of Russia.

6.6. The process of product certification consists, generally, of the following:

- determination of product's compliance with the requirements of regulatory documents by the means of conduction of tests of a sample;
- checking of production of the product subject to certification in order to verify the availability of conditions ensuring stability of characteristics which are determined during certification tests;
- recognition of Approval certificates available at the disposal of the manufacturer;
- issue of a Approval certificate of of Vehicle Type approval;
- inspection control of product's conformity to certified characteristics.

6.7. When granting Approval certificate or Vehicle Type Approval in the framework of this Systems, valid Communications concerning approval of the type of a vehicle granted in the framework of 1958 Geneva Agreement are subject to obligatory recognition.

Departments for certification may also recognize Approval certificates and analogous documents granted in the framework of other Systems of certification (EC, USA, OESR, ISO, etc.).

Recognition of Approval certificates granted by national or foreign authorities is to be performed by the Department for certification which conducts the certification of declared product.

For the purposes of recognition of a certificate of conformity the applicant shall present an application in accordance with the form established in the System.

The application shall be accompanied by the following:a - certified copy of the Approval certificate, its trans- lation, and other and materials determined by the regulations of international or regional certification system (or agreement);

- records of tests conducted by home or foreign test laboratories for compliance with the technical requirements of regulatory documents established in the present System for the product concerned, if this compliance is not confirmed by the certificate subject to recognition.

In the case of insufficiency of reasons for recognition of Approval certificate or of test records issued by foreign authorities, the Department for certification may set a Test laboratory to repeat tests in full volume or separate tests in order to verify the compliance of product with established technical requirements.

On the basis of analysis of presented documents and materials the Department for certification adopts decision concerning the recognition of the Approval certificate. The Approval certificate is recognized in respect to certain product which complies with the technical requirements established by the regulatory documents of the System.

Recognition of the Approval certificate is confirmed by granting Communication concerning the availability of certificate (see Annex 3).

6.8. The term of validity of a Approval certificate shall normally be 3 years. In well grounded cases, at the discretion of the Department for certification, the term of validity may be prolonged for a period of up to 6 months.

6.9. Vehicle Type Approval may be granted, on the discretion of the Department for certification, with a term of validity of 1 or 3 years. In well grounded cases, the term of validity of the Vehicle Type Approval may be prolonged for a period of up to 6 months.

6.10. Manufacturers shall mark certified products by the Mark of conformity in accordance with the GOST R System of Certification, by placing it on every product as well as its packing, and accompanying documents (including user's manual); and on voluntary basis - by indicating this Mark of conformity in advertising materials or in a different way, under a licence agreement concerning the right to use the Mark of conformity, which is to be signed with the Department for certification.

In the framework of 1958 Geneva Agreement, approval marks established by the UN ECE Regulations are used.

6.11. The participants of the System shall be obliged to keep in confidence all information of commercial secret, which they obtain from the manufacturers and organizations in the course of certification and accreditation activities, excluding the final results of the tests, as well as items concerning safety.

6.12. The official language of the System shall be the Russian language. All the documents issued in the System (applications, records, acts, attesting documents, Approval certificates, Vehicle Type Approvals, etc.) shall be drawn up in Russian.

In those cases when the manufacturer intends to certify certain product in the framework of 1958 Geneva Agreement with regard to the UN ECE Regulations, he is obliged to present additionally a full set of documents in English or in French.

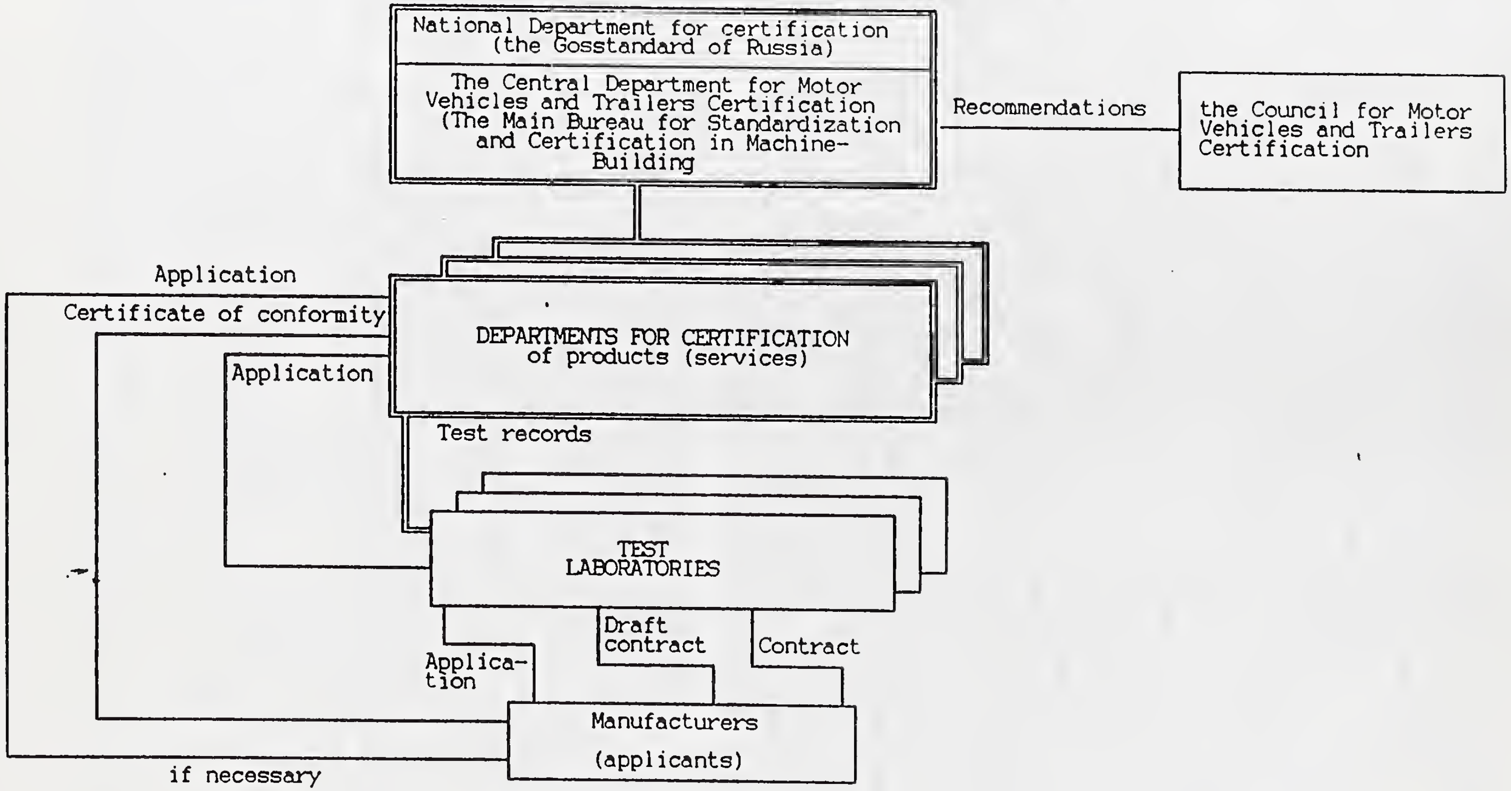
7. FINANCIAL SUPPORT OF CERTIFICATION ACTIVITIES.

7.1. All expences, including those in hard currency, connected with conduction of certification of a certain product are to be borne by the manufacturer of the product concerned. The conditions of payment shall be established by an agreement (contract) between the manufacturer and the Department for certification and (or) Test laboratory.

7.2. Any expences needed for methodological support and development of the System, as well as activities of the Central Department for certification and other Departments for certification, including activities connected with the obligations arising from the participance of the Russian Federation in the 1958 Geneva Agreement, shall be financed from the funds of the Gosstandard of Russia or other governmental bodies, as well as by other interested organizations.

F

OUTLINE OF THE SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION


National Department for certification (the Gosstandard of Russia)
The Central Department for Motor Vehicles and Trailers Certification (The Main Bureau for Standardization and Certification in Machine-Building
Recommendations
the Council for Motor Vehicles and Trailers Certification
Application
Certificate of conformity
Application
DEPARTMENTS FOR CERTIFICATION of products (services)
Test records
TEST LABORATORIES
Applica-tion
Draft contract
Contract
Manufacturers (applicants)
if necessary

Annex 2
For information

MAIN FUNCTIONS OF THE PARTICIPANTS OF THE SYSTEM

1. FUNCTIONS OF THE CENTRAL DEPARTMENT FOR CERTIFICATION.

1.1. Manages the System.

1.2. Co-ordinates the activities of Departments for certification and Test laboratories.

1.3. In the absence of a duly accredited Department for certification of certain type of product carries out its functions.

1.4. Organizes development and preparation for adoption of separate Procedures for certification of certain kinds of products in the framework of the System.

1.5. Provides preparation of lists of concrete products subject to mandatory certification, and lists of regulatory documents with which these products have to comply, for approval of these lists by the Gosstandard of Russia.

1.6. Participates in accreditation of Departments for certification and Test laboratories, and controls their activities.

1.7. Forms the Council for certification, approves its structure and organizes its activity.

1.8. Organizes selective inspection of certified products.

1.9. Informs the public about the rules and procedures of certification, accredited participants of the System and about the results of certification.

1.10. Interacts with the consumers and organizations, receives information concerning revealed non-conformity of the product to the certified sample.

1.11. Interacts with the Technical Committees for standardization of kinds of products and services subject to certification.

1.12. Prepares problems concerning the function of the System for consideration at the meetings of the Gosstandard of Russia.

1.13. Presents to the competent authorities suggestions concerning suspension (prohibition) of manufacture, delivery, marketing, and use of separate types (models, modifications) of products, including imported, if there exists a sufficient belief that it doesn't comply with established safety requirements.

2. FUNCTIONS OF A DEPARTMENT FOR CERTIFICATION

2.1. Develops (organizes developement), co-ordinates and prepares for approval the Procedures for certification of certain kinds of products and other organization and methodological documents in the framework of the System.

2.2. Compiles the lists of products subject to mandatory certification and of regulatory documents to which these products must conform.

2.3. Forms and maintains the fund of regulatory documents applicable to the products subject to certification.

2.4. Grants, refuses to grant and withdraws Approval certificates (Vehicle Type Approvals).

2.5. Organizes and conducts checking of production conditions in respect of product subject to certification.

2.6. Interacts with competent authorities for certification of other countries in accordance with its competency.

2.7. Participates in preparation for and conduction of accreditation of Test laboratories.

2.8. Interacts with the territorial bodies and institutions of the Gosstandard of Russia on the problems of inspection of manufacture of certified products.

2.9. Carries out inspection of conformity of products being manufactured to the certified sample.

2.10. Presents to the Central Department for certification suggestions concerning suspension (prohibition) of manufacture, delivery, marketing, and use of separate types (models, modifications) of products, including imported, if the results of inspection control reveal non-compliance with established safety requirements.

3. FUNCTIONS OF A TEST LABORATORY

3.1. Develops programms, typical and working test metods for each regulatory document.

3.2. Considers technical documents presented by the manufacturer and carries out expert's examination of the objects of the test for conformity to the said documents.

3.3. Conducts certification tests.

3.4. Analyses the results of certification tests, draws up official test records and presents them to the Department for certification.

3.5. Issues conclusions concerning possibility of extension of Certificates of conformity for vehicles modifications differing from those presented for certification tests, and submits the said conclusions to the Department for certification.

3.6. On the grounds of technical documentation presented by the manufacturer, Certificates of conformity and test records issued by competent authorities of other Systems of certification, draws up Conclusion concerning possibility of granting Vehicle Type approval and presents it to the Department for certification.

3.7. Presents to the Department for certification proposals concerning cease of validity of Certificates formerly granted.

3.8. Presents to the Department for certification proposals concerning suspension (prohibition) of manufacture, delivery, marketing, and use of separate types (models, modifications) of products, including imported, if the results of tests reveal non-compliance of characteristics with the requirements of regulatory documents, or if these characteristics witness that a threat exists to the life, health or property of the citizens or to the environment.

3.9. Conducts tests of certified products for the purposes of inspection control.

3.10. Participates in control tests conducted at the test laboratories of the manufacturer of the certified product.

3.11. Participates in checking of production conditions if so authorized by the Department for certification.

3.12. Interacts with other Test laboratories.

4. FUNCTIONS OF THE COUNCIL FOR CERTIFICATION

4.1. Works out proposals concerning development of united strategy of certification in the framework of the System.

4.2. Analyses the activity of the System, prepares recommendations for its improvement and assists to their realization.

4.3. Considers draft work programs in the field of certification, developed, if necessary, by the participants of the System.

4.4. Prepares recommendations concerning the nomenclature of products and dates of introduction of mandatory certification.

4.5. Prepares proposals for developement of regulatory documents applied for the purposes of certification.

4.6. Prepares recommendations concerning creation of Departments for certification and Test laboratories.

4.7. Assists in spreading information about the general directions of activities of the Participants of the System, of the state and developement of the System.

11.
Annex 3
Mandatory

THE STATE COMMITTEE OF THE RUSSIAN FEDERATION FOR
STANDARDIZATION, METROLOGY AND CERTIFICATION
(Gosstandard of Russia)
9, Leninsky pr., Moscow, 117049, Russia

GOST R CERTIFICATION SYSTEM

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION
Name and address of Department that issued the Communication

COMMUNICATION CONCERNING THE AVAILABILITY OF A CERTIFICATE

Registered in the State Register
of the GOST R Certification System
"____"________________ 199__

No.____________________ Valid until "____"___________199__

THE PRESENR COMMUNICATION GRANTED TO______________________________
name of applicant (manufacturer,
____
supplier, addressee) and his address

FOR PRODUCT____
name of product, type, model, mark

PARTY of ________pieces

ON THE GROUNDS OF____
No. of certificate, date of issue

GRANTED BY____
name of authority that issued the certificate

IN ACCORDANCE WITH____
(international, regional, bilateral agreement or
____
other document, number, date)

COMMUNICATION GRANTED by____
name and address of Department for certifi-
____
cation which has granted the Communication

State Register No.____________________

Head of Department for certification	Signature	Name

Stamp

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION.

PROCEDURE OF MOTOR VEHICLES, TRAILERS, THEIR PARTS AND EQUIPMENT CERTIFICATION

Approved by Resolution No. 7 of March 31, 1993 of the Gosstandard of Russia instead of edition approved by Resolution No.1 of April 1, 1992 of the Gosstandard of Russia.

1. SCOPE

The present Procedure establishes rules for preparation and conduction of certification of motor vehicles and trailers: automobiles, buses, trolley-buses, electromobiles, motorcycles, mopeds and trailers (hereinafter referred to as 'motor vehicles'), as well as their parts and equipment, either produced by enterprises operating in the territory of the Russian Federation, including those with joint stock, or imported into this territory (by lots of 3 and more pieces of one type simultaneously) with the purpose of marketing and subsequent operation on the common road network.

This Procedure is not applicable to the following vehicles:

- low speed vehicles, i.e. whose design speed does not exceed 25 kph;
- specialised vehicles with special equipment installed which are not intended for transportation purposes (emergency and operational services, autocranes, autolifts etc.);
- supplied exclusively to the Ministry of Defence;
- manufactured by individuals, including those assembled from spare parts;
- currently being in use, as well as imported second-hand vehicles.

The Procedure includes presenting and consideration of a corresponding application, recognition of approval certificates, conduction of tests of products subject to certification, granting and registration of Approval certificates and Vehicle Type Approval, inspection of conformity of certified products and checking of production conditions.

This Procedure is in full compliance with the procedure of vehicle type approval foreseen by UN ECE Regulations.

Present Procedure is applied jointly with the document "System of Motor Vehicles and Trailers Certification. Basic Principles".

2. REGULATORY DOCUMENTS FOR PRODUCTS SUBJECT TO CERTIFICATION

2.1. The full list of technical requirements and regulatory documents, including UN ECE Regulations and national standardizing documents, applied for the purposes of certification, is given in Annex 1 for different categories of vehicles. The list of mandatory technical requirements for the purposes of certification of vehicles, their parts and equipment is periodically revised and approved by the Gossandard of Russia and is brought to the notice of the public by the Central Department for certification.

3. THE PROCEDURE OF PREPARATION AND CONDUCTION OF CERTIFICATION, GRANTING OF CERTIFICATE OF CONFORMITY AND VEHICLE TYPE APPROVAL

3.1. The preparation of products for certification is performed by the applicant and includes the following:

- determination of the nomenclature of the regulatory documents applicable for the given category of vehicle;

- analysis of the construction of the vehicle for the purposes of determination of the possibility of presenting the vehicle for certification tests in accordance with the established nomenclature of regulatory documents;
- presenting of a corresponding application to the Department for certification or Test laboratory (see Anexes 2, 3). *)

The application shall contain information about the products; accordingly, regulatory documents shall be indicated according to which the applicant intends to conduct certification; information concerning certification of production and quality control system certification be given or, alternatively, proposed terms for inspection production conditions shall be indicated. Possible terms of presenting samples of products for conduction of certification tests shall be indicated, or, alternatively, information about available approval certificates, or Communications concerning type approval of a vehicle with regard to the UN ECE Regulations earlier granted shall be presented.

The Department for certification or Test laboratory shall, within 15 days after the date of receipt of the application, communicate to the applicant its decision, in which it shall agree or refuse to conduct product certification or recognition of certificates.

3.2. In the course of preparation for product certification, the manufacturer shall take steps to prepare for checking of production conditions. The order and terms of checking of production conditions are to be agreed with the Department for certification.

3.3. The applicant shall compile general technical description of the object of certification and separate technical descriptions which should provide:

- complete identification of the product subject to tests;
- availability of all data necessary for drawing up the Approval certificate or Vehicle Type Approval.

In those cases when it is necessary for the applicant to certify certain product for conformity to the UN ECE Regulations in the framework of 1958 Geneva Agreement, the Administrative Department concerned should be obligatory provided by complete sets of documents in Russian as well as in English (French) language.

3.4. Certification tests shall be performed by relevant Test laboratories, with the participation (if so required) of the manufacturer of the product subject to certification, according to the following procedure:

- for the purposes of conduction of tests the applicant shall provide the Test laboratory simultaneously with the required number of samples of the product subject to certification, and its technical description;
- the decision whether to begin certification tests shall be adopted after the confirmation of completeness and accuracy of the technical description, and the compliance of presented samples with technical descriptions;

---

*) Note. The applicant for certification of imported product shall be the manufactrurer, or his representative acting under the laws of the Russian Federation. The applicant for the home-made product should be the manufacturer or his representative.

- certification tests shall be conducted in accordance with attested methods and programs, developed by the Test laboratory for each regulatory document for which it is accredited;

according to the results of certification tests, the Test laboratory shall give to the applicant test record according to the established form.

3.5. The Test laboratory shall transfer the test records and technical descriptions prepared by the applicant to the Department for certification, provided that the results of the tests are satisfactory.

3.6. On the grounds on the positive results of the certification tests, expert's examination of the technical descriptions and satisfactory results of checking of production conditions , the Department for certification shall decide to grant the Approval certificate.

The form and contents of the Approval certificate is given in Annex 4.

The form and contents of the Communication concerning the approval of the type of a vehicle with regard to UN ECE Regulation, granted by a corresponding Administrative Department, is given in each UN ECE Regulation.

3.7. The Approval certificate registered by the Department for certification is given to the manufacturer.

Information concerning the Approval certificates granted by the Department for certification is communicated to the State Register of the GOST R Certification System.

Receiving of Approval certificate or of the Communication concerning the approval of the type of a vehicle gives the manufacturer the right to mark the product concerned by the national Mark of conformity established by the GOST R System of certification or by approval mark in accordance with UN ECE Regulations respectively.

3.8. Confirmation of compliance with the full list of technical requirements presented for the given type of vehicle.

3.8.1. To obtain Vehicle Type Approval for compliance with the whole entity of properties regulated by national standardizing documents and UN ECE Regulations, the applicant shall to the Departament for certification, attaching to the application (Annex 5):

- manufacturer's declaration (Annex 6);
- technical description of the vehicle, which shuold contain all data necessary for drawing up Vehicle Type Approval (Annex 7);
- approval certificates according to the full list of technical requirements applicable to the given type of vehicle;

In case of need, sample of vehicle should be presented for expert's examination of its construction with the purpose of identification with technical descriptions presented and conduction of additional tests.

3.8.2. The Test laboratory, acting independently or on the behalf of the Department for certification shall conduct the examination of presented documents and objects of certification, and issues a Conclusion concerning the conformity of the vehicle with presented requirements. When issuing the Conclusion, the Test laboratory must indicate conditions under which the results of the tests of base vehicle model may be extended for various modifications.

3.8.3. The Department for certification on the basis of results of examination of presented documents and in the virtues of the Conclusion of the Test laboratory shall decide either to grant the applicant the Vehicle Type Approval or to conduct additional examination of vehicle presented, or to conduct additional tests in corresponding Test laboratory.

In addition, decision may be taken to conduct production conditions check with regard to the vehicle presented for type approval.

Positive Conclusions granted for base vehicles are taken into account when granting Vehicle Type Approval for their modifications, including those cases when bare chassis are supplied to the manufacturers of completed vehicles.

Information about Vehicle Type Approvals granted, with indication of their numbers given by the Department for certification is communicated to the State Register of the GOST R System of certification for registration.

Copies of Vehicle Type Approvals are sent by the Department for certification to the Central Department for certification, to the Main Office of the State autoinspection of the Ministry of Internal Affairs of Russia, to the State Customs Committee and to the State Register of the GOST R System of Certification.

3.8.4. Vehicle Type Approval is the basis for importation of vehicles into the territory of the Russian Federation.

Information about the Vehicle Type Approval is entered:

- by home manufacturers - into the passport which is attached to every vehicle produced;
- by the importers of foreign-made vehicles - into the Communication concerning the availability of Vehicle Type Approval (Annex 8), which is given by the representative of importer to every purchaser.

The above mentioned documents containing information about Vehicle Type Approval are to be presented to the authorities of the State autoinspection when registering vehicles. *)

3.8.5. In that case when application is made for Vehicle Type Approval with a term of validity of one year, a positive Conclusion may be issued by the Test laboratory in the virtues of results of other types of tests (acceptance, inspection and other, which were conducted not earlier than 12 months before the date of the issue of the Conclusion), in course of which conformity to regulatory documents containing requirements for ensuring life, health and citizen's property and environment protection was checked.

Before granting Vehicle Type Approval valid for one year, the Department for certification may decide not to check production conditions and make an inquiry for a documental description of production conditions of product concerned.

The Vehicle Type Approval with the term of validity of one year may be granted not more than 3 times for one type of vehicle.

3.8.6. The procedure of recognition of certificates of conformity is described in the document "System of Motor Vehicles and Trailers Certification. Basic Principles" (Item 6.7.).

---

*) Note. Certificates concerning the accordance of the vehicle design wuth regard to road safety, granted by the State autoinspection before January 1, 1994, will remain valid till

4. CHECKING OF THE PRODUCTION CONDITIONS OF THE PRODUCT SUBJECT TO CERTIFICATION

4.1. The checking of production conditions is a component part of the procedure of product certification.

4.2. Production conditions are checked in order to verify manufacturer's ability and preparedness to manufacture product subject to certification in accordance with the requirements of applicable standardizing documents.

For conduction of production conditions check the manufacturer of the product subject to certification shall send to the department for certification a letter of guarantee, drawn up in accordance with Annex 9.

4.3. Checking of production conditions of the product subject to certification is carried out by the Department for certification in cooperation with the specialists of the Test laboratory and representatives of the territorial body of the Gosstandard of Russia. Specialists from other organizations engaged in production and qualiry control systems certification may also participate in the checking.

The Department for certification may entrust the organization and conduction of production conditions check to the representatives of the Test laboratory in cooperation with representatives of the territorial body of the Gosstandard of Russia without its own participance.

4.4. Organization arrangements necessary for preparation and conduction of production conditions check shall be agreed by the manufacturer with the Department for certification on the stage of presenting samples of product for certification tests.

4.5. In the case of availability of certificate confirming the conformity of quality system to the requirements of GOST 40.9001 - GOST 40.9003 or certificate of production, the Department for certification may additionally evaluate the possibilities of the certified quality system or production with regard to ensuring stability of characteristics and qualities which are checked during certification tests.

4.6. When checking production conditions, methods of checking developed by the Department for certification shall be used. In general, these methods shall foresee examination of the following problems:

4.6.1. The structure of the management of the enterprise.

4.6.2. Existense of a documented system of quality control.

4.6.3. Preparations for certification and for certified product quality control

- distribution of responsibility for ensuring of production quality and its certification among the heads of different services of the enterprise;
- existence of a functional subdivision responsible for product certification at all stages of production, which is engaged in the control of the activities of structural subdivisions ensuring stable level of characteristics and properties determined in the course of certification tests.

4.6.4. Actions for documentation control:

- existence of approved procedures of conducting design and technological documentation for those parts and units that have an influence on the fulfilment of the requirements of the standardizing documents according to which certification tests are conducted;

- existence of procedures determining the order of amending and permanent revision of this documentation.

4.6.5. Production identification provisions:

- existence of an efficient method of product identification at all the stages of production;
- taking into account, in the considered method, of procedures of determination of parts, units and critical parameters which have the greatest influence on the characteristics checked during certification tests.

4.6.6. System of checking and testing of final product, as well as of determined parts, units and critical parameters:

- existence, in the documentation concerning the input control, of procedure of checking of completing parts which have an influence on the conformity with the requirements of regulatory documents; and existence of special conditions of acceptance;
- existence of technical control of the determined parts, units and parameters in the process of production;
- existence, in the documentation concerning the periodical tests of the final product, of a procedure of evaluation of its conformity with the requirements of standardizing documents, according to which certification tests are conducted;
- registration and availability of data confirming that the product subject to certification has been checked and tested for the conformity with those standardizing documents, acording to which certification tests are conducted.

4.6.7. Control, measuring and testing equipment:

- necessary precision of the control, measuring and testing equipment should be provided, as well as acceptable environment conditions;
- existence of a system of registration of the control, measuring and testing equipment verification and attestation.

4.6.8. Correcting actions:

- existence of procedures revealing the reasons causing non-conformity of production, and correcting actions preventing the repetition of defects;
- registration and application of changes in the procedures, that were caused by the correcting actions.

4.6.9. Registration of data concerning the quality of product:

- existence of order of registration and keeping of reports of quality checks and tests of parts and units, which have influence on characteristics defined during certification tests, as well as the reports of periodical tests of the final product.

4.7. On the basis of the production conditions check, a Protocol shall be drawn up (Annex 10), containing conclusions and recommendations concerning measures necessary to bring the existing control and test system into conformity with above mentioned requirements.

5. INSPECTION CONTROL OF CERTIFIED PRODUCT

5.1. The inspection control is carried out in order to verify that the manufactured product confirms to the certified sample and to the requirements of all relevant regulatory documents. Time intervals between the inspections are set in the regulatory documents; however, if these intervals are not determined in the said documents, they are to be set by the Department for certification.

5.2. The inspection control is carried out by the representatives of the Department for certification which has granted the Approval certificate or Vehicle Type Approval, in cooperation with the specialists of the Test laboratory which conducted the certification tests, of the territorial body of the Gosstandard of Russia and, if necessary, of the State autoinspection.

The Department for certification may entrust the organization and conduction of inspection control without its own participation to the representatives of the Test laboratory in cooperation with representatives of the territorial body of the Gosstandard of Russia and, if necessary, of the State autoinspection.

5.3. When conducting inspection control, the following basic documents are to be used: technical descriptions and records of certification tests, which are kept at the Department for certification, as well as the documents concerning production conditions check and materials of inspection control earlier conducted (if any).

5.4. The procedure of conduction of inspection control of product's conformity to the certified sample is established on the basis of documents develcped by the Department for certification.

6. MODIFICATION OF VEHICLE TYPE AND EXTENSION OF APPROVAL CERTIFICATES AND VEHICLE TYPE APPROVAL

6.1. Modification of vehicle type is considered to be introduction of essential alterations with respect to those design features of given vehicle category, which are regulated by certain standardizing document.

The list of such alterations for vehicles, as well as for their parts and equipment, is given in each of the UN ECE Regulations.

Any modification of design features which determine the vehicle type shall be notified to the Department for certification, which may, after analysis of documentation and, if necessary, of a sample, may:

- either come to conclusion that the alterations introduced will not result in significant negative concequences, and that vehicle concerned still complies with the requirements of applicable regulatory documents;
- or demand a Conclusion from the Test laboratory.

6.2. The Test laboratory, basing on the documentation presented, results of previously conducted certification tests of vehicle concerned and technical descriptions that are at its disposal, and on the grounds of expertise (if necessary) of modified vehicle type, may either issue Conclusion concerning possibility of extension of Approval certificate or Vehicle Type Approval earlier granted, or decide that it is necessary to conduct tests of the modified type of vehicle.

6.3. Depending on the results of consideration of the compliance of the modified vehicle type with the requirements of certain regulatory document or list of requirements, the Department for certification shall either draw up new Approval certificate or Vehicle Type Approval, or will refuse to grant these documents, according to the procedure laid down in item 3.1.

7. MEASURES TO BE TAKEN BY THE DEPARTMENT FOR CERTIFICATION IN THE CASE OF NON-CONFORMITY OF CERTIFIED PRODUCT WITH PRESENTED REQUIREMENTS

7.1. If non-conformity of manufactured product to certified sample will be found, then the Department for certification which has granted the Approval certificate or Vehicle Type Approval shall notify the manufacturer in written of defects revealed and of possible withdrawal of documents formerly granted.

7.2. The reasons for consideration of product as not conforming to certified sample are as follows:

- negative results of inspection tests when checking conformity of manufactured product to certified sample;
- communications of foreign Administrative Departments or Technical services, as well as of the Ministry of Transport, Ministry of Internal Affairs, Ministry of Nature of Russia and other Ministries and Departments of the Russian Federation, or of independent organizations (Society of consumers, trade firms, etc.) that the product does not conform to certified sample;
- prescriptions of the Main Office of the State autoinspection of the Ministry of Internal Affairs of Russia, based on the investigation of causes and conditions of road accidents, and on the generalization of results of state technical inspections.

7.3. In 10 days after receiving the official notification, the manufacturer shall communicate to the Department for certification or Administrative Department about measures taken in order to restore the conformity of product.

If the Department for certification will consider measures taken as insufficient, then it will, on expiration of 30 days after the official notification, withdraw the Approval certificates and, simultaneously, the Vehicle Type Approval, by the means of placing stamp WITHDRAWN on the copy of document formerly granted. This information is notified to the manufacturer and communicated to the Central Department for certification, Main Office of the State autoinspection, to the State Customs Committee of the Russian Federation and to the State Register of GOST R System of certification.

If Administrative Department considers the measures taken as insufficient, then on the expiration of 30 days after official notification it shall withdraw Communications, concerning the approval of the type of a vehicle with regard to the UN ECE Regulations formerly granted, and shall forthwith inform the manufacturer, the Central Department for certification, the Gosstandard of Russia and the Administrative Departments of other member countries of the 1958 Geneva Agreement by the means of copy of document formerly granted with a stamp WITHDRAWN.

7.4. The second presentation for certification of product for which document formerly granted has been withdrawn is carried out according the same procedure as for the first presentation.

FULL LIST OF TECHNICAL REQUIREMENTS
presented to motor vehicles and trailers, their parts
and equipment for the purposes of certification

NN	Technical requirements or objects of reglamentation	Categories of vehicles											Notes
		M1	M2	M3	N1	N2	N3	O1	O2	O3	O4	L1-L5	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Headlamps and lamps for headlamps	R1 R2	R1 R2	R1 R2	R1 R2	R1 R2	R1 R2	– –	– –	– –	– –	– –	GOST 3544-75 GOST 2023.1-88
2.	Retroreflecting devices	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	–	GOST 20961-75
3.	Illumination of rear registration plates	R4	R4	R4	R4	R4	R4	R4	R4	R4	R4	–	
4.	Direction indicators	R6	R6	R6	R6	R6	R6	R6	R6	R6	R6	R6	GOST 10984-74
5.	Position (side), red rear and stop lamps	R7	R7	R7	R7	R7	R7	R7	R7	R7	R7	–	GOST 10984-74
6.	Noise of three-wheeled vehicles	–	–	–	–	–	–	–	–	–	–	R9	For L4-5 only
7.	Radio interference	R10	R10	R10	R10	R10	R10	–	–	–	–	R10	GOST 17822-78
8.	Strength of door latches and hinges	R11	–	–	R11	–	–	–	–	–	–	–	GOST 28443-90
9.	Protection of the driver against the steering mechanism in event of impact	R12	–	–	–	–	–	–	–	–	–	–	GOST 28691-90
10.	Braking	R13	R13	R13	R13	R13	R13	R13	R13	R13	R13	–	GOST 22895-77
11.	Safety belts anchorages	R14	R14	R14	R14	–	–	–	–	–	–	–	GOST 21015-88
12.	Safety belts	R16	R16	R16	R16	–	–	–	–	–	–	–	GOST 18837-89
13.	Strength of seats and their anchorages	R17	–	–	–	–	–	–	–	–	–	–	GOST 28262-89
14.	Protection against unathorized use	R18	R18	R18	R18	R18	R18	–	–	–	–	–	

1	2	3	4	5	6	7	8	9	10	11	12	13	14
15.	Front fog lights	R19	R19	R19	R19	R19	R19	–	–	–	–	–	
16.	Interior fittings	R21	–	–	–	–	–	–	–	–	–	–	
17.	Protective helmets	–	–	–	–	–	–	–	–	–	–	R22	GOST 28889-90
18.	Reversing lamps	R23	R23	R23	R23	R23	R23	R23	R23	R23	R23	–	GOST 10984-74
19.	Emission of visible pollutants: diesel engines	R24	R24	R24	R24	R24	R24	–	–	–	–	–	GOST 17.2.2.01-84 GOST 21393-75
20.	Headrestraints (headrests)	R25	R25	R25	R25	R25	R25	–	–	–	–	–	GOST 24309-90
21.	External projections	R26	–	–	–	–	–	–	–	–	–	–	GOST 28557-90
22.	Advance-warning triangles	R27	R27	R27	R27	R27	R27	–	–	–	–	R27	GOST 24333-80
23.	Audible signals	R28	R28	R28	R28	R28	R28	–	–	–	–	–	
24.	Protection of occupants of a CV cab	–	–	–	–	R29	R29	–	–	–	–	–	
25.	Pneumatic tyres	R30	R30	–	–	–	–	R30	R30	–	–	–	
26.	Rear-end collision	R32	–	–	–	–	–	–	–	–	–	–	from 01.01.1995
27.	Head-on collision	R33	–	–	–	–	–	–	–	–	–	–	from 01.01.1995
28.	Fire risks	R34	–	–	–	–	–	–	–	–	–	–	GOST R 50464-93 from 01.01.1995
29.	Arrangement of foot controls	R35	–	–	–	–	–	–	–	–	–	–	GOST 24350-88
30.	Construction of public service vehicles	–	–	R36	–	–	–	–	–	–	–	–	GOST 27815-88
31.	Incandescent filament lamps	R37	R37	R37	R37	R37	R37	R37	R37	R37	R37	–	GOST 2023.1-88
32.	Rear fog lamps	R38	R38	R38	R38	R38	R38	R38	R38	R38	R38	–	GOST 10984-74
33.	Speedometers	R39	R39	R39	R39	R39	R39	–	–	–	–	R39	(for L3-L5 only)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
34.	Emission of gaseous pollutants by motor cycles	-	-	-	-	-	-	-	-	-	-	R40	for L3-L5 only
35.	Noise emitted by motorcycles	-	-	-	-	-	-	-	-	-	-	R41	for L3 only
36.	Front and rear protective devices (bumpers)	R42	-	-	-	-	-	-	-	-	-	-	from 01.01.1995
37.	Safety glass	R43	R43	R43	R43	R43	R43	-	-	-	-	-	GOST 5727-88
38.	Rear-view mirrors	R46	R46	R46	R46	R46	R46	-	-	-	-	-	
39.	Emission of gaseous pollutants by mopeds	-	-	-	-	-	-	-	-	-	-	R47	for L1-L2 only
40.	Installation of lightning devices	R48	R48	R48	R48	R48	R48	R48	R48	R48	R48	-	from 01.01.1995 in respect of headlamp adjusting devices GOST 8769-75
41.	Gaseous pollutants : diesel engines	-	R49	R49	-	R49	R49	-	-	-	-	-	
42.	Motor cycles lamps except headlamps	-	-	-	-	-	-	-	-	-	-	R50	GOST 10984-74
43.	Vehicle noise >= 4 wheels	R51	R51	R51	R51	R51	R51	-	-	-	-	-	GOST 27436-87
44.	Small capacity public service vehicles	-	R52	-	-	-	-	-	-	-	-	-	GOST 28345-89
45.	Motorcycles light-signalling devices	-	-	-	-	-	-	-	-	-	-	R53	
46.	Tyres for CV's and their trailers	-	R54	R54	R54	R54	R54	-	R54	R54	R54	-	
47.	Coupling components of combinations of vehicles	-	-	-	-	R55	R55	-	-	R55	R55	-	GOST 2349-75
48.	Rear underrun protection	-	-	-	-	R58	R58	-	-	R58	R58	-	GOST 29120-91
49.	Motor cycles controls	-	-	-	-	-	-	-	-	-	-	R60	for L3,L4 only GOST R 50113-92
50.	External projections : CV's	-	-	-	R61	R61	R61	-	-	-	-	-	GOST 28559-90

1	2	3	4	5	6	7	8	9	10	11	12	13	14
51.	Motor cycles unauthorized use	-	-	-	-	-	-	-	-	-	-	R62	
52.	Noise emitted by mopeds	-	-	-	-	-	-	-	-	-	-	R63	for L1 only
53.	Strength of the superstructure of large passenger vehicles	-	R66	R66	-	-	-	-	-	-	-	-	
54.	Specific equipment for liquified petrol gases	R67	R67	R67	R67	R67	R67	-	-	-	-	-	
55.	Lateral protection: CV's	-	-	-	-	R73	R73	-	-	R73	R73	-	from 01.01.1995
56.	Braking of category L vehicles	-	-	-	-	-	-	-	-	-	-	R78	GOST 28429-90
57.	Steering equipment	R79	R79	R79	R79	R79	R79	-	R79	R79	R79	-	
58.	Gaseous emissions of internal combustion engines	R83	H	H	R83	H	H	-	-	-	-	-	GOST 17.2.2.03-87
59.	Inner noise	H	H	H	H	H	H	-	-	-	-	-	GOST 27435-87
60.	Ventilation and heating	H	H	H	H	H	H	-	-	-	-	-	OST 37.001.413-86 (except M1, N1) OST 37.001.482-88 RD 37.001.018-84 GOST 12.1.005-88 RD 37.001.015-80 GOST 3163-76 (for O category only) OST 37.001.471-88 (except L) OST 37.001.487-89 RD 37.001.005-86 GOST 28070-89
61.	Percentage of harmful substances in the cab	H	H	H	H	H	H	-	-	-	-	-	
62.	Steerability and stability	H	H	H	H	H	H	H	H	H	H	-	
63.	Viewing ability of vehicles	H	H	H	H	H	H	-	-	-	-	-	
64.	Replacement silencing systems	R59	-	-	R59	-	-	-	-	-	-	-	GOST 28359-89
65.	Wipers	H	H	H	H	H	H	-	-	-	-	-	GOST 18699-73

1	2	3	4	5	6	7	8	9	10	11	12	13	14
66.	Fuel consumption	H R84	H R84	H R84	H R84	H R84	H R84	-	-	-	-	H R84	GOST 20306-90
67.	Cool engine starting abilities	H	H	H	H	H	H	-	-	-	-	-	OST 37.001.052-87 OST 37.001.066-85
68.	Dust and water impermeability	H	H	H	H	H	H	-	-	-	-	-	OST 37.001.248-86
69.	Balance of electric energy	H	H	H	H	H	H	-	-	-	-	-	OST 37.003.034-77
70.	Off-road passing abilities, angle of ascent	H	H	H	H	H	H	-	-	-	-	-	TU for certain product
71.	Adaptation to different climatic conditions	H	H	H	H	H	H	-	-	-	-	-	GOST 15150-69 OST 37.001.481-88
72.	Measurement of the maximum speed	H R68	H -	H -	H -	H -	H R68	- -	- -	- -	- -	- -	OST 37.003.482-88 GOST 22576-90
73.	Measurement of the net power	R85	R85	R85	R85	R85	R85	-	-	-	-	-	

Notes : 1. Index R marks corresponding UN ECE Regulations joined by or applied by the Russian Federation.
Index H marks national standards which are indicated in column 14.
2. Vehicle classification - according to GOST 22895-77 and GOST 28429-90.

TECHNICAL REQUIREMENTS
presented to motor vehicles and trailers, their parts
and equipment for the purposes of certification
(valid for up to 1 year)

NN	Technical requirements or objects of reglamentation	Categories of vehicles	Notes
1.	Braking	M, N, O	R 13 GOST 22895-77 OST 37.001.067-86
		L	R 78 GOST 6253-78 GOST 28429-90 OST 37.004.008-78
2.	Gaseous emissions of internal combustion engines Inner noise	M1, N1	R 83 R 15 GOST 17.2.2.03-87 OST 37.001.054-86
		M2, M3, N2, N3	R 49 OST 37.001.070-75 OST 37.001.234-81
		L	R 40 OST 37.001.262-83 R 47 OST 37.004.013-83
3.	Emission of visible pollutants: diesel engines	M, N	R 24 GOST 21393-75 GOST 17.2.2.01-84
4.	Vehicle noise >= 4 wheels	M, N	R 51 GOST 27436-87
	Noise of three-wheeled vehicles	L	R 9 OST 37.004.022-85
	Noise emitted by motorcycles	L	R 41 OST 37.004.022-85
	Noise emitted by mopeds	L	R 63 OST 37.004.022-85
5.	Inner noise	M, N	GOST 27435-87
6.	Percentage of harmful substances in the cab	M, N	GOST 12.1.005-88 RD 37.031.015-80
7.	Installation of lightning devices	M, N, O	R 48 GOST 8769
	Motorcycles light-signalling devices	L	R 53 OST 37.003.038-77
8.	Protection of the driver against the steering mechanism in event of impact	M1	R12 OST 37.001.017-70
9.	Safety belts anchorages	M1	R14 GOST 21015-88
10.	Safety belts	M1	R16 GOST 18837-89
11.	Head-on collision	M1	R 33 OST 37.001.263-83

Index R marks corresponding UN ECE Regulations joined by or applied by the Russian Federation.
Vehicle classification - according to GOST 22895-77 and GOST 28429-90.

TECHNICAL REQUIREMENTS

presented to motor vehicles and trailers, their parts and equipment for the purposes of certification (valid for up to 3 years)

NN	Technical requirements or objects of reglamentation	Categories of vehicles											Notes
		M1	M2	M3	N1	N2	N3	01	02	03	04	L1-L5	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Headlamps and lamps for headlamps	R1 R2	R1 R2	R1 R2	R1 R2	R1 R2	R1 R2	- -	- -	- -	- -	- -	GOST 3544-75 GOST 2023.1-88
2.	Retroreflecting devices	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	-	GOST 20961-75
3.	Illumination of rear registration plates	R4	R4	R4	R4	R4	R4	R4	R4	R4	R4	-	
4.	Direction indicators	R6	R6	R6	R6	R6	R6	R6	R6	R6	R6	R6	GOST 10984-74
5.	Position (side), red rear and stop lamps	R7	R7	R7	R7	R7	R7	R7	R7	R7	R7	-	GOST 10984-74
6.	Noise of three-wheeled vehicles	-	-	-	-	-	-	-	-	-	-	R9	For L4-5 only
7.	Radio interference	R10	R10	R10	R10	R10	R10	-	-	-	-	R10	GOST 17822-78
8.	Strength of door latches and hinges	R11	-	-	R11	-	-	-	-	-	-	-	GOST 28443-90
9.	Protection of the driver against the steering mechanism in event of impact	R12	-	-	-	-	-	-	-	-	-	-	GOST 28691-90
10.	Braking	R13	R13	R13	R13	R13	R13	R13	R13	R13	R13	-	GOST 22895-77
11.	Safety belts anchorages	R14	R14	R14	R14	-	-	-	-	-	-	-	GOST 21015-88
12.	Safety belts	R16	R16	R16	R16	-	-	-	-	-	-	-	GOST 18837-89
13.	Strength of seats and their	R17	-	-	-	-	-	-	-	-	-	-	GOST 28262-89
14.	Front fog lights	R19	R19	R19	R19	R19	R19	-	-	-	-	-	
15.	Protective helmets	-	-	-	-	-	-	-	-	-	-	R22	GOST 28889-90
16.	Reversing lamps	R23	R23	R23	R23	R23	R23	R23	R23	R23	R23	-	GOST 10984-74

1	2	3	4	5	6	7	8	9	10	11	12	13	14
17.	Emission of visible pollutants: diesel engines	R24	R24	R24	R24	R24	R24	-	-	-	-	-	GOST 17.2.2.01-84
18.	Headrestraints (headrests)	R25	R25	R25	R25	R25	R25	-	-	-	-	-	GOST 21393-75
19.	External projections	R26	-	-	-	-	-	-	-	-	-	-	GOST 24309-90
20.	Advance-warning triangles	R27	R27	R27	R27	R27	R27	-	-	-	-	R27	GOST 28557-90
21.	Audible signals	R28	R28	R28	R28	R28	R28	-	-	-	-	-	GOST 24333-80
22.	Protection of occupants of a CV cab	-	-	-	-	R29	R29	-	-	-	-	-	
23.	Pneumatic tyres	R30	R30	-	-	-	-	R30	R30	-	-	-	
24.	Rear-end collision	R32	-	-	-	-	-	-	-	-	-	-	from 01.01.1995
25.	Head-on collision	R33	-	-	-	-	-	-	-	-	-	-	from 01.01.1995
26.	Fire risks	R34	-	-	-	-	-	-	-	-	-	-	GOST R 50464-93
27.	Arrangement of foot controls	R35	-	-	-	-	-	-	-	-	-	-	from 01.01.1995 GOST 24350-88
28.	Construction of public service vehicles	-	-	R36	-	-	-	-	-	-	-	-	GOST 27815-88
29.	Incandescent filament lamps	R37	R37	R37	R37	R37	R37	R37	R37	R37	R37	-	GOST 2023.1-88
30.	Rear fog lamps	R38	R38	R38	R38	R38	R38	R38	R38	R38	R38	-	GOST 10984-74
31.	Speedometers	R39	R39	R39	R39	R39	R39	-	-	-	-	R39	(for L3-L5 only)
32.	Emission of gaseous pollutants by motor cycles	-	-	-	-	-	-	-	-	-	-	R40	for L3-L5 only
33.	Noise emitted by motorcycles	-	-	-	-	-	-	-	-	-	-	R41	for L3 only
34.	Safety glass	R43	R43	R43	R43	R43	R43	-	-	-	-	-	GOST 5727-88
35.	Rear-view mirrors	R46	R46	R46	R46	R46	R46	-	-	-	-	-	
36.	Emission of gaseous pollutants by mopeds	-	-	-	-	-	-	-	-	-	-	R47	for L1-L2 only
37.	Installation of lightning devices	R48	R48	R48	R48	R48	R48	R48	R48	R48	R48	-	from 01.01.1995 in respect of headlamp adjusting devices GOST 8769-75
38.	Gaseous pollutants : diesel engines	-	R49	R49	-	R49	R49	-	-	-	-	-	

1	2	3	4	5	6	7	8	9	10	11	12	13	14
39.	Vehicle noise >= 4 wheels	R51	R51	R51	R51	R51	R51	-	-	-	-	-	GOST 27436-87
40.	Small capacity public service vehicles	-	R52	-	-	-	-	-	-	-	-	-	GOST 28345-89
41.	Motorcycles light-signalling devices	-	-	-	-	-	-	-	-	-	-	R53	
42.	Tyres for CV's and their trailers	-	R54	R54	R54	R54	R54	-	R54	R54	R54	-	
43.	Coupling components of combinations of vehicles	-	-	-	-	R55	R55	-	-	R55	R55	-	GOST 2349-75
44.	Rear underrun protection	-	-	-	-	R58	R58	-	-	R58	R58	-	
45.	Motor cycles controls	-	-	-	-	-	-	-	-	-	-	R60	GOST 29120-91 for L3,L4 only
46.	External projections : CV's	-	-	-	R61	R61	R61	-	-	-	-	-	GOST R 50113-92
47.	Noise emitted by mopeds	-	-	-	-	-	-	-	-	-	-	R63	GOST 28559-90 for L1 only
48.	Strength of the superstructure of large passenger vehicles	-	R66	R66	-	-	-	-	-	-	-	-	
49.	Braking of category L vehicles	-	-	-	-	-	-	-	-	-	-	R78	GOST 28429-90
50.	Gaseous emissions of internal combustion engines	R83	H	H	R83	H	H	-	-	-	-	-	GOST 17.2.2.03-87
51.	Inner noise	H	H	H	H	H	H	-	-	-	-	-	GOST 27435-87
52.	Ventilation and heating	H	H	H	H	H	H	-	-	-	-	-	OST 37.001.413-86 (except M1, N1) OST 37.001.482-88
53.	Percentage of harmful substances in the cab	H	H	H	H	H	H	-	-	-	-	-	RD 37.001.018-84 GOST 12.1.005-88 RD 37.001.015-80

1	2	3	4	5	6	7	8	9	10	11	12	13	14
54.	Steerability and stability	H	H	H	H	H	H	H	H	H	H	-	GOST 3163-76 (for 0 category only) OST 37.001.471-88 (except L) OST 37.001.487-89 RD 37.001.005-86 GOST 28070-89
55.	Viewing ability of vehicles	H	H	H	H	H	H	-	-	-	-	-	

Notes : 1. Index R marks corresponding UN ECE Regulations joined by or applied by the Russian Federation.
Index H marks national standards which are indicated in column 14.
2. Vehicle classification - according to GOST 22895-77 and GOST 28429-90.

Annex 2
Mandatory

To: Head of Department for certification
____
(name of organization, name, address)

Head of Test laboratory
____
(name of organization, name, address)

APPLICATION - DECLARATION
for conduction of product certification in the GOST R System of Certification and System of Motor Vehicles and Trailers Certification

1. ____
(name of applying organization, address, OKP code if available)
in the person of ____________________________________ declares,
name and position
that product ____
name of product, OKP code (if available)
manufactured according to ____________________________________
name and requisits of the manufacturer's
____, conforms to the
documentation (technical conditions, standard)
requirements of ____
names and numbers of standardizing documents
and applies to conduct certification of said product for conformity to the requirements of above mentioned documents according to the scheme ____
number of certification scheme; in case of scheme No.5,
____
indicate kind of production conditions check

2. We ask to conduct certification tests (certification tests already conducted) at ____
name and address of accredited Test laboratory

3. The applicant accepts following obligations:
   - to fulfil all conditions of certification;
   - to ensure stability of certified characteristics of product which is marked by the Mark of conformity;
   - to pay all expences connected with the conduction of certification.

4. Additional information ____

Head of organization	Signature	Name
Chief accountant	Signature	Name
Stamp of organization	Date	

Annex 3
Recommended

To: Head of Department for certification
____
(name of organization, name, address)

Head of Test laboratory
____
(name of organization, name, address)

APPLICATION
for recognition of Approval certificate

We apply for recognition of certificate for______________________
name of product,
__________________________ , manufactured by __________________________
trade mark, type, model name and address of
______________ , tested at ______________________________________
manufacturer name and address of Test laboratory
for compliance with ____
number and name of document according to which
_______________________________ .
certification was conducted
Certificate granted by____
name and address of authority that granted
________________ according to the procedures of ______________________
the certificate name of System of
________________________________ .
certification or agreement

Additional information (concerning evaluation of production stability, accreditation of the Test laboratory, etc.)______________
____

Please find attached:____
list of documents and materials

We accept following obligations:

1. To fulfil all rules and procedures of recognition established in the Russian Federation.
2. To ensure stability of certified characteristics of product which is marked by the Mark of conformity;
3. To pay all expences connected with the procedure of recognition independently of its results.

Name and address of

Annex 4
Mandatory

THE STATE COMMITTEE OF THE RUSSIAN FEDERATION FOR
STANDARDIZATION, METROLOGY AND CERTIFICATION
(Gosstandard of Russia)
9, Leninsky pr., Moscow, 117049, Russia

GOST R CERTIFICATION SYSTEM

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION
Name and address of Department that granted the Certificate

CERTIFICATE OF CONFORMITY

Registered in the State Register
of the GOST R Certification System
"____"______________ 199__

Reg.No.____________________ Valid until "____"__________199__

GRANTED TO____
name of manufacturer/.importer/applicant, address

THE PRESENT CERTIFIES, THAT DULY IDENTIFIED SAMPLE(S) OF PRODUCT
____
name of product, trade name, type, model

HAS BEEN TESTED AND CONFORMS TO ALL SAFETY REQUIREMENTS, SET BY
____
names and numbers of regulatory documents

Inspection control is conducted____________________________
periodicity

by means of testing samples________________________________
taken from market and(or) presented by

________________ and production conditions check (if quality sys-
the manufacturer

tem certificate and(or) production certificate are available).

IN THE VIRTUES OF PRESENT CERTIFICATE, THE MANUFACTURE MARKS EVERY ARTICLE BY THE MARK OF CONFORMITY, SO AS TO CERTIFY THE CONFORMITY OF PRODUCT TO SAMPLE(S) TESTED AND TO ABOVE MENTIONED REGULATORY DOCUMENTS.

CERTIFUCATE GRANTED by____________________________________
name and address of Department for certifi-
____
cation which has granted the Certificate

State Register No.____________________

Head of Department for certification Signature Name
Stamp

Attachment to the
Approval certificate
No.________________________

1. Granted on the basis of tests ______________________________
Nos. of product samples

conducted by Test laboratory(-ies):

NN	Name and address of the Test laboratory	Test record No., date	Reg.No. of the accredited Test laboratory in the State Register

and production condition check ______________________________
quality control system certificate,

______________________________ ______________________________
date and number of Protocol of check State Register No.

2. Product is marked by the Mark of conformity, which is placed on: every unit of product, its packing, accompanying documentation in accordance with the requirements of______________________________
______________ names of regulatory documents

3. Place where the Mark of conformity is situated_______________

Annex 5
Mandatory

To: Head of Department for certification
____
(name of Department, name, address)

Head of Test laboratory
____
(name of laboratory, name, address)

APPLICATION
for Vehicle Type Approval

1. ____
(name of applying organization, address, OKP code if available)
in the person of ____________________________________ applies
name and position
for Vehicle Type Approval to be granted for ______________________
name of product, trade
____
mark, type, model

2. List of certificates available for component parts and equipment granted by ____
names and addresses of Departments for certification
is attached.

3. Copies of technical descriptions and of certificates of conformity are attached.

4. Information concerning the Marks of conformity of approval marks affixed on the product ____
availability of marks, places where they are
____
affixed

5. General technical description is attached.

6 The applicant pledges himself to present necessary number of vehicles of indicated type for identification, technical examination and conduction of necessary tests.

7. The applicant pledges himself:
- to ensure stability of characteristics of vehicles that are granted the Vehicle Type Approval;
- to pay all the expences connected with the issue of Vehicle Type Approval.

Head of organization	Signature	Name
Chief accountant	Signature	Name
Stamp of organization	Date	

Annex 6
Mandatory

DECLARATION CONCERNING THE SAFETY OF PRODUCT

____
(name and address of manufacturer)

in the person of ________________________________
(name and position)

declares under his own responsibility that production:

____
(trade name, type, model)

manufactured according to________________________________
name of document

conforms to all the requirements ensuring the safety of life and health of the customers, preventing any damage to the environment and to the property of the customers, established for such kind of production by legislation of producing country acting in moment of presenting of application. Declarer pledges himself to fulfil all the necessary actions for receiving Vehicle Type Approval in accordance with procedure, acting in the Russian Federation, during 12 months after date of presenting this Declaration.

____
(signature)

____
(date)
(stamp)

15.
Annex 7
Mandatory

THE STATE COMMITTEE OF THE RUSSIAN FEDERATION FOR
STANDARDIZATION, METROLOGY AND CERTIFICATION
(Gosstandard of Russia)
9, Leninsky pr., Moscow, 117049, Russia

GOST R CERTIFICATION SYSTEM

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION
Name and address of Department that granted Vehicle Type Approval

VEHICLE TYPE APPROVAL

Registered in the State Register
of the GOST R Certification System
"____"________________ 199__

Valid until "____"__________199__

Reg.No.________________

No.________________________
of State Register

Vehicle mark ....
Vehicle type ....
Vehicle category ....
Manufacturer and his address.........................
Manufacturer's representative
and his address......................................

GENERAL CHARACTERISTICS OF THE VEHICLE

Wheel arrangement/ driven wheels ....
Body type/ number of doors ....
Overall dimensions, mm
length..............width .... height...............
Wheelbase, mm ....
Tread, mm: front ....rear ....

Curb mass, kg ....
Mass of completely loaded vehicle, kg ....
Max. axle load, kg: front .... rear ....
Permissible full mass in combination with trailer:
- trailer without brakes ....
- trailer with brakes ....

Stamp

No.________________________
of State Register

Engine: mark, type ....
- number and arrangement of cylinders ....
- displacement, cc ....
- compression ratio ....

Max. power, kW at rpm ....
Max. torque, Nm at rpm ....
Fuel ....
Fuel system ....
Air filter: mark, type ....
Carburetor: mark, type...................................
Ignition ....
Ignition coil: mark, type................................
Distributor: mark, type ....
Spark plugs: mark, type ....

Outlet and neutralization system of exhaust gases:
....
Main silencer: mark, type ....
Additional selencer(s) : mark, type ....
Catalityc converter: mark, type ....
Transmission ....
Clutch : mark, type ....
Gearbox: mark, type ....
- number of gears and ratios.............................
Final drive: mark, type ....
- ratio of final drive ....
Suspension: mark, type
- front ....
- rear ....
Steering mechanism: mark, type ....
Braking systems:
- service ....
- emergency ....
- parking ....
Tyres ....
Additional equipment

Vehicle____________________ conforms to safety requirements
(mark, type)
established in the Russian Federation.

Date

Head of Department for certification   Signature   Full name

Stamp

Reg.No.____________________

Attachment to the
Vehicle Type Approval
No.____________________
of State Register

Reg.No.____________________

SUMMARY LIST

of Communications concerning the approval of the type of a vehicle and of Approval certificates

Regulatory documents	Names of Administrative Departments which have granted Communication concerning the approval of the type of a vehicle and(or) Approval certificates	Document No. and the date of issue

Head of Department for certification | Signature | Full name

Annex 8
Mandatory

A form or a stamp with the name
and address of manufacturer (importer)

COMMUNICATION N______

____
(date of issue)

Passenger car, lorry, bus, trolley-bus, electromobile,
motorcycle, moped, trailer, semitrailer
(Underline where applicable)

Manufacturer ____
name and address

Product ____
trade name, type, model

Chassis No.___________ Engine No._____________ Car body No.___________

Has the "Vehicle Type Approval" No. _____________

granted ____
date of issue, name and address of the Department for certification

The manufacturer (importer) confirms the compliance of this product to the approved sample by the moment of sale.

Manufacturer's (importer's) representative — Signature — Name in full

Stamp

Annex 9
Mandatory

To: Head of Department for certification
____
(name of organization, name, address)

LETTER OF GUARANTEE

Hereby we, undersigned, guarantee the availability of production conditions for ensuring stability of characteristics which are checked in the course of certification tests of____________________
name of product
________________________ according to regulatory documents__________
trade mark, type, model list of
____
regulatory documents applicable to product subject to certification

Detailed description of above mentioned conditions is presented in the "Grounds concerning the preparedness of the enterprise for manufacture of product subject to certification", attached to this letter.

The applicant agrees to give the Department for certification opportunity to check production conditions and pledges himself to pay all the expences connected with organization and conduction of the said check.

Head of organization	Signature	Name
Chief accountant	Signature	Name
Stamp	Date	

Annex 10
For information

PROTOCOL
concerning results of production conditions check
in respect of product subject to certification

In the period from "___"__________ 199__ to "___"___________199__
the Comission in the body of Chairman______________________________
and members of the Comission_______________________________________
full names; names of organizations
____
which Comission members represent, their position in organization

with the participance of authorized representative of the territorial body of Gosstandard of Russia_______________________
name of organization,
_________________________________ has checked availability of produc-
full name of the representative
tion conditions necessary for ensuring stability of characteristics that are controled during certification tests of samples of product at the enterprise____
name of enterprise, address
in respect of product____
trade name, type, mark
subject to certification in the System of Motor Vehicles and Trailers Certification in accordance with the requirements of
____
titles and numbers of regulatory documents

In course of inspection, the following was determined:

1. ____
availability of a person in the management who is responsible for
____
certification of products

2. ____
availability of quality control system and its compliance to
____
GOST 40.9001 - 40.9003

3. ____
availability of a special subdivision responsible for stability
____
of characteristics of certified product

4. ____
availability of system of conduction of designer's and technologi-
____
cal documentation with account of application of UN ECE Regulations

5. ____
existence, at the input control, of special conditions of accep-
____
tance taking into account application of the UN ECE Regulations

6. ____
availability of a system of reriodical tests and of procedures
____
for evaluation final product conformity to the requirements of
____
regulatory documents

7. ____

evaluation of the efficiency of the system of control, measuring

____

and testing equipment verification

8. ____

efficiency of quality control system and testing system

____

Conclusion:

At the enterprise ______________________________

name and address

there exist (do not exist) conditions necessary for ensuring stability of characteristics which are checked during certification tests of product samples according to ______________________

list of regulatory

____

documents

Recommendations:

For further increase of efficiency of activities aimed at ensuring stability of characteristics of certified product and its compliance with the requirements of regulatory documents, the Comission recommends:

1. ____

2. ____

3. ____

Signatures:

Chairman of Comission
Members of Comission

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION.

PROCEDURE OF MOTOR VEHICLES AND TRAILERS SPARE PARTS AND ACCESSORIES CERTIFICATION

Approved by Resolution No. 7 of March 31, 1993 of the Gosstandard of Russia instead of edition approved by Resolution No.1 of April 1, 1992 of the Gosstandard of Russia.

1. SCOPE

The present Procedure establishes rules for preparation and conduction of certification of spare parts and accessories for motor vehicles and trailers (hereinafter referred to as 'spare parts'). *)

The Procedure includes presenting and consideration of a corresponding application, recognition of approval certificates granted by foreign competent authorities, conduction of tests of products subject to certification, granting and registration of Approval certificates and Vehicle Type Approval, inspection of conformity of certified products and, if necessary, checking of production conditions, if so provided by the sceme established by the Department for certification.

Present Procedure is applied jointly with the document "System of Motor Vehicles and Trailers Certification. Basic Principles".

2. REGULATORY DOCUMENTS FOR PRODUCTS SUBJECT TO CERTIFICATION

2.1. Mandatory certification of spare parts is based on application of regulatory documents which establish requirements aimed at ensuring safety of citizens' life, health and property and environment protection which are applicable directly to the products subject to certification or related to complete vehicles and their component parts.

2.2. Regulatory documents establishing requirements other than mentioned in item 2.1. are used for the purposes of voluntary certification.

2.3. Certification tests of spare parts shall be conducted in accordance with methods established in standardizing documents for the product, and if they are not available, in accordance with attested methods and programs, developed or recognized by the Test laboratory and agreed with the manufacturer of the vehicle.

3. THE PROCEDURE OF PREPARATION AND CONDUCTION OF CERTIFICATION

3.1. The list of groups of spare parts is given in Annex 2.

The list of concrete spare parts subject to mandatory certification is periodically revised and approved by the Gosstandard of Russia and is brought to the notice of public by the Central Department for certification.

---

*) Note. In 1993-1994 it is permitted not to apply this Procedure to spare parts which are supplied by manufacturers of approved vehicles or those vehicles whose production is discontinued. In this case tha manufacturer must present declaration concerning the safety of product; and the territorial bodies of the Gosstandard of Russia shall carry out inspection of confirmity of spare parts being produced to the requirements of regulatory documents.

3.2. Certification is conducted on the base of application-declaration (Annex 3), which shall be presented by the manufacturer to the Department for certification. *)

The application shall contain information about the products; accordingly, regulatory documents shall be indicated according to which the applicant intends to conduct certification; proposed terms for inspection production conditions shall be indicated, as well as possible terms of presenting samples of products for conduction of certification tests shall be indicated. Application for recognition of approval certificates already available shall be presented in accordance with model given in Annex 4.

The Department for certification shall, within 15 days after the date of receipt of the application, communicate to the applicant its decision, in which it shall agree or refuse to conduct product certification, and shall also indicate Test laboratory and method of conduction of tests.

3.3. In the course of preparation for product certification, the manufacturer shall take steps to prepare for checking of production conditions. The order and terms of checking of production conditions are to be agreed with the Department for certification.

3.4. If other regulatory documents are not available, then the applicant shall compile a technical description of the object of certification (Annex 5), which should ensure:

- complete identification of the product subject to tests;
- availability of all data necessary for drawing up the Approval certificate.

3.5. Certification tests shall be performed by relevant Test laboratories, with the participation (if so required) of the manufacturer of the product subject to certification, according to the following procedure:

- for the purposes of conduction of tetst the applicant shall provide the Test laboratory simultaneously with the required number of samples of the product subject to certification, and regulatory documents, according to which it is manufactured, or, if they are not available, its technical description;
- besides evaluation of compliance with the requirements of regulatory documents concerning the spare parts directly, test methods and programs may include inspection of the influence of the products subject to certification which they exert on standardized characteristics of complete vehicle or its component parts;
- according to the results of certification tests, the Test laboratory shall give to the applicant test record according to the established form.

3.6. Spare parts and accessories certification shall be conducted in co-ordination with representative of the manufacture of the vehicle for which these parts are intended.

3.7. The Test laboratory shall transfer the test records to the Department for certification, provided that the results of the tests are satisfactory.

---

*) Note. The applicant for certification of imported product shall be the manufacturer, or his representative acting under the laws of the Russian Federation. The applicant for the home-made product should be the manufacturer or his representative.

3.8. On the grounds on the positive results of the certification tests and satisfactory results of checking of production conditions , the Department for certification shall decide to grant the Approval certificate.

The form and contents of the Approval certificate is given in Annex 6.

Test laboratory may be accredited in established order in capacity of a Departmenr for certification.

The Approval certificate registered by the Department for certification is given to the manufacturer.

Information concerning Approval certificates granted, with indication of their numbers shall be communicated by the Department for certification to the Central Department for certification, the State Customs Committee, and to the State Register of GOST R System of Certification for registration.

Receiving of Approval certificate obliges the manufacturer to mark the product concerned by the Mark of conformity.

3.10. The procedure of recognition of approval certificates is described in the document "System of Motor Vehicles and Trailers Certification. Basic Principles" (Item 6.7.).

4. CHECKING OF THE PRODUCTION CONDITIONS OF THE PRODUCT SUBJECT TO CERTIFICATION

4.1. The checking of production conditions before the issue of a Approval certificate is a component part of the procedure of spare parts certification.

4.2. Production conditions are checked in order to verify existence of conditions necessary for ensuring stable level of manufacture of the product subject to certification.

For conduction of production conditions check, the manufacturer of the product subject to certification shall send to the Department for certification a letter of guarantee, drawn up in accordance with Annex 7.

4.3. Checking of production conditions of the product subject to certification is carried out by the Department for certification in cooperation with the specialists of the Test laboratory and representatives of the territorial body of the Gosstandard of Russia. Specialists from other organizations engaged in production and quality control systems development and evaluation may also participate in the checking.

The Department for certification may entrust the organization and conduction of production conditions check to the representatives of the Test laboratory in cooperation with representatives of the territorial body of the Gosstandard of Russia without its own participance.

4.4. Organization arrangements necessary for preparation and conduction of production conditions check shall be agreed by the manufacturer with the Department for certification on the stage of presenting samples of product for certification tests.

4.5. When checking production conditions, methods of checking developed by the Department for certification shall be used.

It is recommended to use, as guidelines for production conditions check, the provisions of item 4.6. of the document "System of Motor Vehicles and Trailers Certification. Procedure of Motor Vehicles and Trailers, Their Parts and Equipment Certification".

4.6. On the grounds of the production conditions check, a Protocol shall be drawn up (Annex 8), containing conclusions and recommendations concerning measures necessary to bring the existing control and test system into conformity with established requirements.

5. INSPECTION CONTROL OF CERTIFIED PRODUCT

5.1. The inspection control is carried out in order to verify that the manufactured product conforms to the certified sample and to the requirements of relevant regulatory documents. Periodicity of the inspections is set by the Department for certification.

5.2. The inspection control is carried out by the representatives of the Department for certification which has granted the Approval certificate, in cooperation with the specialists of the Test laboratory which conducted the certification tests, of the territorial body of the Gosstandard of Russia and, if necessary, of the State autoinspection.

The Department for certification may entrust the organization and conduction of inspection control without its own participation to the representatives of the Test laboratory in cooperation with representatives of the territorial body of the Gosstandard of Russia.

5.3. Basic documents for conducting inspection control are the following: technical descriptions and records of certification tests, as well as the documents concerning production conditions check and materials of inspection control earlier conducted (if any).

5.4. The procedure of conduction of inspection control of conformity of product to the certified sample is established on the basis of documents developed and approved by the Department for certification.

6. MEASURES TO BE TAKEN BY THE DEPARTMENT FOR CERTIFICATION IN THE CASE OF NON-CONFORMITY OF CERTIFIED PRODUCT WITH PRESENTED REQUIREMENTS

6.1. If non-conformity of manufactured product to certified sample will be found, then the Department for certification shall notify the manufacturer in written of defects revealed and of possible withdrawal of documents formerly granted.

6.2. The reasons for consideration of product as not conforming to certified sample are as follows:

- negative results of inspection tests when checking conformity of manufactured product to certified sample;
- communications of governmental bodies, consumers or independent organizations that the product does not conform to certified sample;

6.3. In 10 days after receipt of the official notification, the manufacturer shall inform to the Department for certification about measures taken in order to restore the conformity of product.

If the Department for certification will consider measures taken as insufficient, then it will, on expiration of 30 days after the official notification, withdraw the Approval certificate earlier granted and shall forthwith inform the manufacturer thereof by the means of a copy of document formerly granted with a stamp WITHDRAWN on it.

This information shall be also communicated to the Central Department for certification, to the State Customs Committee of the

Russian Federation and to the State Register of GOST R System of certification.

6.4. The second presentation for certification of spare parts for which the Approval certificate formerly granted has been withdrawn is carried out according the same procedure as for the first presentation.

Annex 1
Mandatory

DECLARATION CONCERNING THE SAFETY OF PRODUCT

____
(name and address of manufacturer)
in the person of ____________________________________
(name and position)

conforms to all the requirements ensuring the safety of life and health of the customers, preventing any damage to the environment and to the property of the customers, established for such kind of production by legislation of producing country acting in moment of presenting of application.

Head of enterprise	Signature	Full name
Stamp	Date	

Annex 2
For information

LIST

of groups of spare parts and accessories for motor vehicles and trailers, which have an influence on the safety of citizens' life, health and property and on the environment protection

1. Parts and units of brake systems.
2. Parts and units of steering equipment.
3. Parts and units of lighting and light-signalling devices, including additional accessories.
4. Parts and units of: fuel feed system, ignition, intake and exhaust systems, having influence on fuel consumption and emission of polluants with vaste gases. Filters.
5. Audible warning devices.
6. Safety belts and other restraint systems, including child's.
7. Head restraints (headrests).
8. Seats
9. Front and rear bumpers.
10. Wheels and their components.
11. Parts and units of suspension.
12. Additional elements of facing and exterior.
13. Detachable luggage racks.
14. Elements of glazing.
15. Rearview mirrors.
16. Coupling devices.
17. Parts and units of transmission.
18. Speedometers.
19. Tachometers.
20. Windscreen wipers.
21. Special devices for improvement of ecological, economic and power characteristics.
22. Equipment for luquified or compressed gase feed or for combined feed.

8.
Annex 3
Mandatory

To: Head of Department for certification
____
(name of organization, name, address)

APPLICATION - DECLARATION
for conduction of product certification
in the GOST R System of Certification and
System of Motor Vehicles and Trailers
Certification

1. ____
(name of applying organization, address, OKPO code if available)
in the person of ______________________________ declares,
name and position
that product ____
name of product, OKP code (if available), manufactured
____________________ ,
serially or by parties
manufactured according to ______________________________
name and requisits of the manufacturer's
______________________________, conforms to the
documentation (technical conditions, standard)
requirements of ______________________________
names and numbers of standardizing documents
and applies to conduct certification of said product for conformity to the requirements of above mentioned documents according to the scheme ______________________________
number of certification scheme; in case of scheme No.5,
____
indicate kind of production conditions check
2. We ask to conduct certification tests at
____
name and address of accredited Test laboratory

3. The applicant accepts following obligations:
- to fulfil all conditions of certification;
- to ensure stability of certified characteristics of product which is marked by the Mark of conformity;
- to pay all expences connected with the conduction of certification.

4. Additional information ______________________________

Head of organization	Signature	Name
Chief accountant	Signature	Name
Stamp of organization	Date	

Annex 4
Recommended

To: Head of Department for certification
____
(name of organization, name, address)

Head of Test laboratory
____
(name of organization, name, address)

APPLICATION
for recognition of Approval certificate

We apply for recognition of certificate for ____________________
name of product,
____________________, manufactured by ____________________
trade mark, type, model — name and address of
____________, tested at ____________________
manufacturer — name and address of Test laboratory
for compliance with ____________________
number and name of document according to which
____________________.
certification was conducted

Certificate granted by ____________________
name and address of authority that granted
____________ according to the rules of ____________________
the certificate — name of System of
____________________.
certification or agreement

Additional information (concerning evaluation of production stability, accreditation of the Test laboratory, etc.) ____________________

Please find attached: ____________________
list of documents and materials

We pledge ourselves:

1. To fulfil all rules and procedures of recognition established in the Russian Federation.
2. To ensure stability of certified characteristics of product which is marked by the Mark of conformity;
3. To pay all expences connected with the procedure of recognition independently of its results.

Name and address of the applicant ____________________
Telephone ____________________
Telex ____________________ Fax ____________________

Name, position and phone of person responsible for this application ____________________

Head of organization	Signature	Name
Chief accountant	Signature	Name
Stamp of organization	Date	

Annex 5
For information

TECHNICAL DESCRIPTION

____
(name of product)

1. Manufacturer and his address______________________________
2. Product intended for use__________________________________
3. Marking____
place and method of affixing, sheme of arrangement
4. Vehicles for installation on which the product is intended for
____
type, mark, category

5. Other data____

Head of enterprise	Signature	Full name
Stamp	Date]	

11.
Annex 6
Mandatory

THE STATE COMMITTEE OF THE RUSSIAN FEDERATION FOR
STANDARDIZATION, METROLOGY AND CERTIFICATION
(Gosstandard of Russia)
9, Leninsky pr., Moscow, 117049, Russia

GOST R CERTIFICATION SYSTEM

SYSTEM OF MOTOR VEHICLES AND TRAILERS CERTIFICATION
Name and address of Department that granted the Certificate

APPROVAL CERTIFICATE

Registered in the State Register
of the GOST R Certification System
"_____"________________ 199__

Reg.No.____________________ Valid until "____"___________199__

GRANTED TO____
name of manufacturer/importer/applicant, address
THE PRESENT CERTIFIES, THAT DULY IDENTIFIED SAMPLE(S) OF PRODUCT
____
name of product, type, mark
HAS BEEN TESTED AND CONFORMS TO ALL SAFETY REQUIREMENTS, SET BY
____
names and numbers of regulatory documents
Inspection control is conducted____________________________________
periodicity
by means of testing samples____
taken from market and(or) presented by
__________________ and production conditions check (if quality sys-
the manufacturer
tem certificate and(or) production certificate are available).

IN THE VIRTUES OF PRESENT CERTIFICATE, THE MANUFACTURE MARKS EVERY ARTICLE BY THE MARK OF CONFORMITY, SO AS TO CERTIFY THE CONFORMITY OF PRODUCT TO SAMPLE(S) TESTED AND TO ABOVE MENTIONED REGULATORY DOCUMENTS.

CERTIFICATE GRANTED by____
name and address of Department for certifi-
____
cation which has granted the Certificate
State Register No.______________________

Head of Department for certification	Signature	Full name

Stamp

12.

Attachment to the
Approval certificate

1. Granted on the basis of tests of product samples
_________________________ conducted by Test laboratory(-ies):
No. of product samples

NN	Name and address of the Test laboratory	Test record No., date	Reg.No. of the accredited Test laboratory in the State Register

and production condition check ______________________________
quality control system certificate,

______________________________ ______________________
or date and number of Protocol of check State Register No.

2. Product is marked by the Mark of conformity, which is placed on: every unit of product, its packing, accompanying documentation in accordance with the requirements of___________________________
______________ names of regulatory documents

3. Place where the Mark of conformity is situated________________

Annex 7
Mandatory

To: Head of Department for certification

____
(name of organization, name, address)

LETTER OF GUARANTEE

Hereby we, undersigned, guarantee the availability of production conditions for ensuring stability of characteristics which are checked in the course of certification tests of____________________
name of product
__________________________ according to regulatory documents__________
list of
____
regulatory documents applicable to product subject to certification

Detailed description of above mentioned conditions is presented in the "Grounds concerning the preparedness of the enterprise for manufacture of product subject to certification", attached to this letter.

The applicant agrees to give the Department for certification opportunity to check production conditions and pledges himself to pay all the expences connected with organization and conduction of the said check.

Attachment: the said in one copy.

Head of organization	Signature	Name
Chief accountant	Signature	Name
Stamp	Date	

Annex 8
For information

PROTOCOL

concerning results of production conditions check
in respect of product subject to certification

In the period from "___"_________ 199__ to "___"__________199__
the Comission in the body of Chairman______________________________
and members of the Comission_____________________________________
full names; names of organizations

____
which Comission members represent, their position in organization

with the participance of authorized representative of the territorial body of Gosstandard of Russia__________________________
name of organization,
______________________________ has checked availability of produc-
full name of the representative
tion conditions necessary for ensuring stability of characteristics that are controled during certification tests of samples of product at the enterprise____
name of enterprise, address
in respect of product____
trade name, type, mark
subject to certification in the System of Motor Vehicles and Trailers Certification in accordance with the requirements of
____
titles and numbers of regulatory documents

In course of inspection, the following was determined:

1.____
availability of a person in the management who is responsible for
____
certification of products

2.____
availability of a system of periodical tests and of procedures
____
for evaluation final product conformity to the requirements of
____
regulatory documents

Conclusion:

At the enterprise ____
name and address
there exist (do not exist) conditions necessary for ensuring stability of characteristics which are checked during certification tests of product samples according to_____________________________
list of regulatory
____
documents

Recommendations:

For further increase of efficiency of activities aimed at ensuring stability of characteristics of certified product and its compliance with the requirements of regulatory documents, the Comission recommends:

1.____

2.____

3.____

Signatures:

Chairman of Comission
Members of Comission

APPENDIX C - CATALOGUE OF AVAILABLE RUSSIAN OFFICIAL DOCUMENTS
(In Russian)

1. Laws of the Russian Federation:
    - 1.1. On standardization.
    - 1.2. On uniformity of measurements.
    - 1.3. On certification of products and services.
    - 1.4. On legislative fundamentals on labor safety.
    - 1.5. On fire safety.
    - 1.6. On communications.

2. List of products and services subjected to the mandatory certification in the Russian Federation. Confirmed by the Board of GOSSTANDART, Resolution No.8, March 31, 1994.

    The list contains object names with the attached information as follows:

    - codes of the All-Russian classifier for products and services;
    - codes of the Trade nomenclature of external economic activity, and
    - denominations of the standards in compliance with those products and services are to be certified.

3. An amendment No.1 to the above mentioned list. Confirmed by the Board of GOSSTANDART , Resolution No.23, October 10, 1994.

4. Certification rules in the Russian Federation. Confirmed by the Board of GOSSTANDART, Resolution No.3, February 16, 1994.

5. Certification system GOST R. Rules and procedures. Confirmed by the Board of GOSSTANDART, Resolution No. 14, September 21, 1994.

6. An importation regulation into the Russian Federation for goods subjected to the mandatory certification. Confirmed by the Chairman of the State Customs Committee of the Russian Federation, May 5, 1994, and by the Chairman of Committee of the Russian Federation for Standardization, Metrology and Certification, April 28, 1994, and registered by No.599 of the Ministry of Justice, June 15, 1994.

7. Commentaries to an above mentioned regulation for the certification of goods subjected to the mandatory certification. Confirmed by the Chairman of GOSSTANDART, September 15, 1994.

DEPOSITORY:

U.S. DEPARTMENT OF COMMERCE
TECHNOLOGY ADMINISTRATION
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
OFFICE OF STANDARD SERVICES
TRB BLDG. 417
GAITHERSBURG, MD 20899
Phone: (301) 975-4000
fax: (301) 963-2871

APPENDIX D - OPTIONS FOR FOREIGN TESTING LABORATORIES
Interested in Assisting Local Manufacturers to Obtain the UL Mark

As a leader in safety testing, product certification, and facility registration, Underwriters Laboratories Inc. (UL) is extending its services to help domestic and foreign manufacturers meet the challenges of the international marketplace. UL does this through its global network of reciprocal arrangements with certification organizations throughout the world. The result is a streamlined process for obtaining safety testing, certification and facility registration for multiple national markets.

UL's existing arrangements with foreign testing and certification organizations are based on the mutual recognition of test methods and results. All arrangements have been preceded by comprehensive procedures developed to build confidence so that no matter which organization develops the product test data package, the results will be as uniform as possible. Although the procedures may vary somewhat based upon the individual circumstances, all take into account participation in the IECEE-CB Scheme, CEN/CENELEC organizations and national accreditation where applicable. In some instances, we have exchanged personnel for joint training purposes and have placed UL engineers on a temporary basis at organizations in other countries. In addition, we have arranged for simultaneous observation and supervision of tests in each other's laboratories and/or at manufacturers' facilities. Meetings and other forms of information exchange and close communication have occurred in all cases.

UL places such great importance on the quality of services we provide because those who rely on UL product safety certification in the United States demand the highest possible degree of uniformity. In addition, we have learned over the years that constant vigilance and established methods of review and countercheck are needed so as to avoid divergence in operation, in interpretations and in decision-making.

Through analyzing our existing cooperative arrangements with numerous foreign testing bodies developed through years of service, we would like to share our philosophy of Mutual Recognition Arrangements (MRA) built through a solid foundation of confidence and trust. On the following pages we introduce the "pyramid concept" which allows the development of working arrangements starting from the basics, such as "UL Information Center",and gradually adding new elements such as "Intermediate Applicant Service", "100% Supervisory Testing" and "Correlation Testing" to finally achieve the level of mutual confidence required for implementation of a Mutual Recognition Agreement.

MRA
Correlation Testing
100% Supervisory Testing
Intermediate Applicant
Ul Information Center

UL Information Centers have been established around the world to assist foreign clients in their efforts to obtain the UL Mark.

UL Information Centers are prepared to perform a variety of services such as:

- helping clients become familiar with UL's methods of operation;
- providing information about various UL services including Listing, Recognition, Classification and Follow-Up;
- answering questions regarding UL submittal procedures;
- helping foreign clients overcome a perceived language barrier by offering interpretation and translation services;
- distributing UL complimentary materials (informative and promotional) such as the UL Catalog of Standards, Product Index and various brochures;
- helping clients identify the UL Standards applicable for their products;
- directing clients' inquiries to the appropriate UL office engineering group; and
- either selling UL Standards (which requires additional license) or informing clients where and how to obtain UL Standards.

In order to create and maintain a reliable, dependable and complete source of UL information, UL offers special training for staff members of UL's Information Centers.

Obtaining the status of a UL Information Center is considered a very important initial step on the way to building a relationship between UL and a foreign organization. Additionally, it allows the necessary time to become familiar with UL methods of operation, provides the opportunity to meet UL staff and assists in obtaining a basic knowledge about UL requirements and standards.

INTERMEDIATE APPLICANT SERVICE

UL's procedures for submitting products, establishing Follow-Up Service, paying invoices and general correspondence are structured to allow domestic and foreign clients to work directly with UL staff. However, clients may choose to authorize agents to act on their behalf. The scope of this authorization generally covers a wide range of activities associated with the submittal of products. Similarly, the Intermediate Applicant Service can be offered to foreign clients who wish to obtain the UL Mark, but do not wish to handle/coordinate the submittal themselves. This service, when offered by a foreign testing/certification organization, will serve as a valuable service to local manufacturers and may be considered a progression in the steps toward higher levels of cooperation with UL.

The Intermediate Applicant Service for submittal to UL may involve:

- determining the applicable UL Standard(s) for an investigation;

- helping a client by reviewing the product description, photos, instructions, brochures and selecting appropriate documentation to be forwarded to UL for use in determining the specific test program, sample selection, time and cost limit of the investigation;

- assisting a client with the completion of UL Application Forms and Follow-Up Service Agreements;

- submitting all requested samples and documentation to UL;

- being responsible for payment of UL invoices associated with the project;

- reviewing and/or assisting in completing any constructional data sheets;

- providing translations as requested by the client; and

- following up on the status of the project through its completion.

Since Intermediate Applicants may offer a variety of submittal-related services to a number of manufacturers, it is understandable that they must be knowledgeable about UL procedures, practices and standards. UL will provide support as necessary to help the Intermediate Applicant maintain this knowledge.

100% SUPERVISORY TESTING PROGRAM

In addition to being a UL Information Center and providing the Intermediate Applicant Service, foreign testing organizations may participate in UL's 100% Supervisory Testing Program.

Under this program, the product examination and testing may be conducted at the participating organization's facilities under 100% supervision and assistance of UL personnel. Test results thus generated are considered equivalent to data developed at UL's own facility.

The above program may be implemented under the following conditions:

a) The organization must have the physical resources, equipment, and qualified personnel needed to conduct the appropriate tests.

   The laboratory must be furnished with annually-calibrated test equipment suitable for the correct performance of tests in accordance with the applicable standard(s) and/or procedures. Instruments' calibration must be done in accordance with a nationally or internationally recognized standard of measure or standard reference material. Test areas must have the proper energy resources, lighting, temperature control, humidity control and other environmental conditions needed to conduct the tests. The laboratory must effectively monitor and control those factors which affect the testing conducted.

   Testing personnel must have the necessary education, training, technical knowledge and experience to conduct the tests under the supervision of UL personnel.

b) Tests must be performed and data collected under the direct supervision and witnessing of UL personnel.

c) Samples tested, equipment used, methods used and results obtained must be documented as part of the data sheet package.

d) An assessment of laboratory facilities must be conducted by UL.

CORRELATION TESTING PROGRAM

Once it has been established that the organization has the physical resources, adequate equipment and trained personnel to evaluate products in accordance with UL procedures and requirements, the correlation testing on a case-by-case basis may be implemented as a step toward the final stage of test data acceptance.

Under the correlation testing program, parallel investigations are conducted at the foreign laboratory and UL. The test data from both laboratories are then compared.

a) Correlating data - Data correlates when the foreign laboratory's data deviates from UL generated data by not more than ± 10 percent. The ± 10 percent tolerance is noted as an overall guideline, and specific requirements may depend on the actual test conducted and product evaluated. An additional but abbreviated correlation and verification investigation may be required to resolve any questionable areas.

b) Non-correlating data - If data does not correlate (varies significantly), causes for the deviations must be determine. Reasons for the difference may be such things as incorrect test procedures, instrumentation, laboratory conditions, etc. When the reasons for differences or variations are found, the foreign testing organization is requested to make the necessary corrections to prevent the differences from occurring during future investigations. Non-correlating data may make it necessary to conduct an additional complete correlation investigation.

To assure optimum client service, if the foreign-submitted data does not correlate with UL-developed data, but both foreign laboratory and UL-developed test results are considered acceptable in accordance with the standard, the product certification will not be delayed pending resolution of the differences and variances of test data.

All correlation testing is monitored, tracked and recorded by UL for future reference and consideration.

TEST DATA ACCEPTANCE

The scope of the Test Data Acceptance Program varies. Generally, testing organizations entering this phase of relationship with UL have already undergone a successful assessment of their testing facilities, conducted several investigations under the 100% UL supervision procedures and participated in the Correlation Testing Program usually covers a few selected

The Test Data Acceptance program usually covers a few selected product categories based on client interest, and investigations are generally conducted on a case-by-case basis.

All test data submitted to UL for acceptance are thoroughly reviewed (audited) for conformance with UL requirements by the UL Engineers handling the applicable product category. The audit generally includes a review of:

a) sample construction;

b) test methods;

c) test results;

d) test equipment; and

e) data recording procedures.

If the product is determined by UL to be in compliance with the appropriate UL standards, then depending upon the circumstances involved and the type of product, the auditor informs the may be issued to the manufacturer during the UL audit. If minor changes are required or additional information is needed to establish compliance of the product, authorization to use a UL Mark client. This may be done either directly or via the foreign testing organization depending on the foreign organizations preference and as agreed by UL.

It should be mentioned here that as a Recognized NCB and a participator in the CB Scheme, UL is obligated to "recognize" CB Test Certificates and CB Test reports does not necessarily participating in the scheme. Like UL, these NCB's have also been assessed and accredited by Scheme Representatives. Recognition of CB Test Certificates and CB Test reports does not necessary mean blanket acceptance, but it does mean that UL, as participating member, will give serious consideration to accept information contained in the CB Test Report.

MUTUAL RECOGNITION AGREEMENTS: TEST DATA EXCHANGES/COOPERATIVE ARRANGEMENTS/ MEMORANDUMS OF UNDERSTANDINGS

Mutual Recognition Agreements (MRA) represent a hierarchy of increasing degree of mutual confidence between the two testing and certification organizations. Whether the agreement is as complicated as a legal contract or as simple as a handshake, the MRA serves as a vehicle to assist domestic clients streamline foreign investigations and obtain the desired foreign mark as well as assisting foreign manufacturers in obtaining the UL Mark.

Under the MRA's, the foreign organization and UL jointly offer their services to conduct product-safety evaluations and to certify products in accordance with the applicable national and international standards. A manufacturer seeking testing and certification of a product may obtain such services from either UL or the foreign organization or both.

Products evaluated to the appropriate standards for construction and performance by one party may be certified by the other party, subject to successful audit of the involved test data package.

Each organization is responsible for authorization, use and control of its certification marks. Follow-up inspections at manufacturer facility are the responsibility of each certification organization in accordance with its usual procedures.

As an additional feature of UL's Mutual Recognition Agreements, both organizations work toward the total acceptance of each other's test results performed in accordance with specified standards. To this end, both organizations exchange information on matters relating to testing and certification in designated areas where both organizations are operating programs, reviewing each other's standards, cooperating in technical exchange visits, cross-training, and round-robin testing.

In summary, UL is extremely interested in offering services and programs which facilitate international trade, a primary objective being to provide local service through the UL Global Network of cooperative arrangements. The consecutive steps of the pyramidal concept introduced above are only a framework preparing the background for further discussions and do not have to be followed exactly. Each testing and certification organization is unique and has specific operation procedures, therefore the final stage such as Mutual Recognition Agreement should be accomplished using this concept in the most practical and advantageous way for both involved organizations.

APPENDIX E - ATTENDEES

Fourth Meeting of the U.S.-Russia Business Development Committee's Standards Working Group

Name	New York	North brook
Charles E. Adkins Director Technical Support Operational Safety and Health Administration U.S. Department of Labor 200 Constitution Avenue, NW Room 3453 Washington, DC 20210 (202) 219-7031	X	
Leonard M. Andersen Engineer Liquid Oxygen Process P.O. Box 1529 New York, NY 10116 (212) 529-3084	X	
Romie Ares American Society of Mechanical Engineers (ASME) Staff ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8571	X	
Alan Bagner Director Accreditation and Certification ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8580	X	
George H. Balestrieri President AFCEA-NY TECKNIT 838 Main Avenue Passaic, NJ 07055 (201) 778-6200	X	
Robert C. Bazzell Vice President European Operations Motors Trading Corp. General Motors Corp. 3044 W. Grand Blvd. Suite 4-235-GM Bldg. Detroit, MI 48202-3046 (313) 556-9284		X
William Berger Director, Codes and Standards ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8520	X	
Serguei F. Bezverkhi President Committee of the Russian Federation for Standardization, Metrology and Certification (GOSSTANDART) 9 Leninsky Prospekt Moscow, 117049 (095) 236-4044	X	X
S. Joe Bhatia Vice President, Follow-Up Services Underwriters Laboratories Inc. 333 Pfingsten Road Noerthbrook, IL 60062 (708) 272-8800, ext. 43400		X
Steven Brody Senior Manager Regulatory and Component Engineering Symbol Technologies, Inc. 116 Wilbur Place Bohemia, NY 11716 (516) 563-2400, ext. 4858	X	

Name	New York	North brook
Clyde R. Camp Director, Corporate Standards Central Research Labs Texas Instruments 13510 North Central Expressway, M/S 237 Dallas, TX 75243 (214) 995-0407	X	
Domenic A. Canonico Vice President, Technology ABB CE Power Products Manufacturing Combustion Engineering, Inc. 911 West Main Street Chattanooga, TN 37402 (615) 752-2513	X	
James L. Carter Ford Motor Co. Fairlane Plaza South 330 Town Center Drive Suite 328 Dearborn, MI 48126 (313) 322-1673		X
G. Thomas Castino President and Chief Executive Officer Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062		X
Vladimir M. Chibirev Deputy Trade Representative Trade Representation of the Russian Federation in the United States of America 2001 Connecticut Avenue, NW Washington, DC 20008 (202) 232-0975	X	
Tatiana E. Choutova Assistant to the President Protecs International Co. 1512 Spruce St., Box 6 Philadephia, PA 19102 (215) 545-6909	X	
Lee Dosedlo Chief Engineer - Engineering Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062 (708) 272-8800, ext. 42230		X
John Drengenberg Assistant to the Vice President External Affairs Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062 (708) 272-8800, ext. 42088		X
James Dunn Project Manager, AMRUSS COM 1153 East 72nd Avenue Anchorage, AL 99518 (907) 349-4933	X	
Gerry M. Eisenberg Director, Nuclear Codes and Standards ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8510	X	
Richard E. Feigel Assistant Vice President Engineering The Hartford Steam Boiler Inspection and Insurance Co. One State Street Hartford, CT 06102 (203) 722-5652	X	
Anatoly E. Godakov Economic Counselor Trade Representation of the Russian Federation in the United States of America 2001 Connecticut Avenue, NW Washington, DC 20008 (202) 232-5988	X	

Name	New York	North brook
Judith Gorman Associate Staff Director IEEE Standards Department The Institute of Electrical and Electronics Engineers Inc. 445 Hose Lane, P.O. Box 1331 Piscataway, NJ 08855-1331 (908) 562-3820	X	
Richard T. Gorman Director, Business Development PASSAC INTERNATIONAL P.O. Box 1518 Bellevue, WA 98009 (206) 828-5372		X
Melvin R. Green Assciate Executive Director Codes and Standards ASME INTERNATIONAL 345 East Street New York, NY 10017-2392 (212) 705-8560	X	X
Steven J. Grimes Director of Business Devel. ENTELA, INC. 3033 Madison Avenue, S.E. Grand Rapids, MI 49548 1-800-888-3787	X	X
Manuel Gutierrez Managing Director Technical Codes and Standards ASME INTERNATIONAL 345 East Street New York, NY 10017-2392 (212) 705-8562	X	
Randall L. Halverson Director of Business Development Central Asia and Eastern Russia International Cellular Infrastructure Group MOTOROLA 1501 West Shure Drive Arlington Heights, IL 60004 (708) 632-7062	X	
Ross Hansen Retliff Testing Labs 795 Marconi Avenue Ronkonkoma, NY 11779 (516) 737-1500	X	
Robert Harris Vice President, External Affairs Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062 (708) 272-8800, ext. 43677		X
Sue Hirschl ASME Staff, ASME INERNATIONAL 345 East 47th Street M/S 10D New York, NY 10017-2392 (212) 705-8561	X	
Vladimir Ivashkov President Interlink Group Corporation 70 E. 55th Street New York, NY 10022 (212) 752-4015	X	
Lowell Jacobs Director, Quality Operating Systems Prince One Prince Center Holland, MI 49423 (616) 392-5151		X
James W. Johnson TUV Product Service 475 Judd Street, POB 104 Marine on St. Croix, MN 55047 (612) 433-4513	X	X
Edward R. Kelly Principal and Director Global Product Standards Planning AMP Inc. M. S. 210-020 P.O. Box 3608 Harrisburg, PA 17105-3608 (717) 558-6153	X	

Name	New York	North brook
Fred L. Kinsinger Manager Technology and Engineering Babcock & Wilcox 20 S Van Buren Avenue P.O. Box 351 Barberton, OH 44203-0351 (216) 860-6240 in Moscow, Russia (095) 203-1025	X	
Frank K. Kitzantides Vice President, Engineering National Electrical Manufacturers Association 2101 L Street, N.W., Suite 300 Washington, DC 20037-1526 (202) 457-8479	X	
Arkadi Koudinov Vice President Interlinl Group Corporation 70 E. 55th Street New York, NY 10022 (212) 752-4015	X	
Evgeniy B. Kudrin Counselor, GOSSTANDART 9 Leninsky Prospekt Moscow, 117049 (095) 236-4044	X	X
June Ling Manager Director, Operations Codes and Standards ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8570	X	
George Q. Lofgren President Registrar Accreditation Board 611 East Wisconsin Avenue P.O. Box 3005 Milwaukee, WI 53201-3005 (414) 272-8575	X	
Donald R. Mackay Director International Standards AIR-CONDITIONING & REFRIGERATION INSTITUTE 4301 North Fairfax Drive Suite 425 Arlington, Virginia 22203 (703) 524- 8800	X	
Lois Marotta ASME Staff, ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-7023	X	
Robert L. Martell, Jr. Assistant Vice President Approvals Division Factory Mutual Research 1151 Boston-Providence Turnpike P.O. Box 9102 Norwood, MA 02062 (617) 255-4850	X	X
Steven M. Matthews Quality Assurance Engineer U.S. Nuclear Regulatory Commission Washington, D.C. 20555 (301) 504-3191	X	
Leroy M. May Senior Staff Consultant for Standards and Conformity AT&T Network System P.O. Box 444 2 Gatehall Drive Parsippany, NJ 07054-0444 (201) 397-3893	X	
Michael Merker Director Publishing and Administration Codes and Standards ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8480	X	

Name	New York	North brook
Walter R. Mikesell President, Senior Partner Mikesell & Boyak Associates 834 Cornell Avenue Albany, CA 94706 (510) 222-7473 in St.Petersburg, Russia (812) 156-4707	X	
Norman E. Morrell Corporate Manager Quality-Product Reliability The Budd Company 3155 W. Big Beaver Road P.O. Box 2601 Troy, MI 48007-2601 (810) 643-3658		X
Edouard G. Nesvijski Director PROTECS INTERNATIONAL CO. 1512 Spruce St., Box 6 Philadelphia, PA 19102 (215) 545-8429	X	
Kathryn M. Nordberg Engineer, Technical Standards Ford Motor Co. Fairlane Plaza South 330 Town Center Drive Suite 328 Dearborn, MI 48126 (313) 337-3935		X
Stephen P. Oksala Director, Corporate Standards UNISYS M/S E8 134 P.O. Box 500 Blue Bell, PA 19424 (215) 986-4883	X	X
Vladimir N. Otrokhov Head, Administration for International Cooperation GOSSTANDART 9 Leninsky Prospekt Moscow, 117049 (095) 236-4044	X	X
Richard Paddock Major Projects Officer Office of Telecommunications U.S. Department of Commerce Washington, DC 20230	X	
Alexandr G. Pasko Deputy Head of Department of Standardization and Certification in Machine-Building GOSSTANDART 9 Leninsky Prospekt Moscow, 117049 (095) 236-3250	X	X
Mikhail V. Petrichenko Director, Moscow Office Motors Trading General Motors Corp. World Trade Center, office 1009 12 Krasnopresnenskaya nab. Moscow, 123610 (095) 253-2852		X
Dave Perkins CRE COA Reliability Engineering, Product Design Verification, and Quality Assurance Manager, Compressor Control Corp. 11359 Aurora Avenue Des Moines, IA 50322 (515) 254-2324		X
Donald L. Peyton Consultant, Consulting Services 2 Beverly Road White Plains, NY 10605 (914) 761-1576	X	
Walter A. Poggi President Retliff Testing Laboratories 795 Marconi Avenue Ronkonkoma, NY 11779 (516) 737-1500	X	

Name	New York	North brook
Leon Przybyla Manager, Automotive Sector Quality Services Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062 (708) 272-8800, ext. 42267		X
L. John Rankine President, RANKINE ASSOCIATES 231 Bayberry Lane Westport, CT 06880 (203) 226-0657	X	
R. Dan Reid Manager, Supplier Development/ Supplier Quality North American Operations General Motors Corp. 6060 West Bristol Road Mail Code 2721 Flint, MI 48554-2721		X
Ronald H. Reimer Corporate Manager Industry Standards and Product Regulations ALLEN-BRADLEY 1201 South Second Street Milwaukee, WI 53204 (414) 382-2227	X	
E. J. "Ed" Rolfes Manager International Business Development International Operations Navistar International Transportation Corporation 455 North Cityfront Plaza Drive Chicago, IL 60611 (312) 836-2189		X
Heinz Rosen Manager International Inspections Underwriters Laboratories Inc. 1285 Walt Whitman Road Melville, NY 11747-3081 (516) 271-6200, ext. 22836	X	
Brien Rossborough Director Quality and Accreditation Programs Inchcape Testing Services 3210 American Drive Mississauga, Ontario L4V 1B3 Canada (416) 678-7820	X	X
Leon Rotberg Project Administration Business Operations for the Commonwealth of Independent States Compressor Controls Corp. 11359 Aurora Avenue Des Moines, IA 50322 (515) 254-2498		X
Hon. Pedro A. Sanjuan President, Institute of East-West Dynamics 220 E. 42nd Street Suite 3501 New York, NY 10017 (212) 697-8091	X	
Viktor I. Sapritsky Laboratory Head All-Russian Research Institute of Optical and Physical Measurements 46 Ozernaya Moscow, 119361 (095) 437-5511	X	
Gus Schaefer Chief Engineer, Follow-Up Services Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062 (708) 272-8800, ext. 43603		X
Harvey E. Schock, Jr. Principal Product Assurance Consulting 30 Oak Ridge Drive Haddonfield, NJ 08033-3507 (609) 428-5880	X	

Name	New York	North brook
Alan Schoffman TECHNICAL MANAGEMENT CONSULTING P.O. Box 325 New Milford, NJ 07646-0325 (201) 837-0534	X	
Mark E. Sheehan Director, Pressure Technology Codes and Standards ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8530	X	
James M. Shepard Director Technical and Engineering Services General Chemical Delaware Development Laboratory 6300 Philadelphia Pike Claymont, DE 19703		X
Viktor N. Smirnov Deputy Head Department for Technical Policy in Certification GOSSTANDART 9 Leninsky Prospekt Moscow, 117049 (095) 236-2336	X	X
Polina Kotlyar Smith, Esq. (201) 656-9324 (202) 588-5611	X	
Klaus Spiegel President TUV Rheinland of North America, INC. 12 Commerce Road Newtown, CT 06470 (203) 426-0888	X	
Nancy Harvey Steorts President Nancy Harvey Steorts International 4689 South Versailles Avenue Dallas, TX 75209 (214) 522-9211		X
Albert Tholen Chief Laboratory Accreditation Program National Institute of Standards and Technology U.S. Department of Commerce TRF Bldg. 411, Rm. A180 Gaithersburg, MD 20899 (301) 975-4017	X	
Igor N. Troitski Senior Scientific Advisor Interlink Group Corp. 70 E. 55th Street New York, NY 10022 (212) 752- 4015	X	
Thomas L. Trueblood Manager, Public Affairs International Navistar International Transportation Corporation 455 North Cityfront Plaza Drive Chicago, IL 60611 (312) 826-2646		X
Gary Tyra Manager, Quality Assurance TUV Rheinland of North America, Inc. 12 Commerce Road Newtown, CT 06470 (203) 426-0888	X	
John Varrassi Manager, Media Relations Public Information ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8158	X	

Name	New York	North brook
Stanley I. Warshaw Senior Policy Advisor for Standards and Technology U.S. Department of Commerce Rm. 3036 Washington, DC 20230 (202) 482-5620	X	X
Michael Wasserman Interpreter 7731 North Eastlake Terrace Chicago, IL 60626 (312) 764- 3224	X	X
Walter Wattaul Telecommunications Engineer International Business Communication Systems, Inc. 2 Commercial Street Sharon, MA 02067 (617) 784-1116	X	
Les Weinstein, Esq. Regulatory Counsel Center for Devices and Radiological Health Food and Drug Administration U.S. Department of Health and Human Services 5600 Fishers Lane (HFZ-83) Rockville, MD 20857 (301) 594-4774	X	X
Kurt Wessely Director, Standardization Codes and Standards ASME International 345 East 47th Street New York, NY 10017-2392 (212) 705-7062	X	
George T. Willingmyre Vice President Washington Operations American National Standards Institute 655 15th St., N.W. Suite 300 Washington, DC 20005 (202) 639-4090	X	
David A. Wizda Director Certification Projects Development Codes and Standards ASME INTERNATIONAL 345 East 47th Street New York, NY 10017-2392 (212) 705-8590	X	
Eldar E. Zulfugarzade Guest Researcher National Institute of Standards and Technology U.S. Department of Commerce TRB Bldg. 417, Rm. 117 Gaithersburg, MD 20899 (301) 975-4412	X	X